

Owyhee Canyonlands Wilderness

Environmental Impact Statement

Draft



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
OREGON — IDAHO — NEVADA

1984

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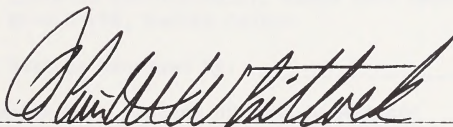
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OWYHEE CANYONLANDS WILDERNESS

ENVIRONMENTAL IMPACT STATEMENT

Prepared By:

Bureau of Land Management
Department of the Interior
February 1984

A handwritten signature in dark ink, appearing to read "R. H. Whitbeck", is written over a horizontal line.

State Director, Idaho

OWYHEE CANYONLANDS WILDERNESS EIS

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Owyhee Canyonlands Wilderness
Environmental Impact Statement

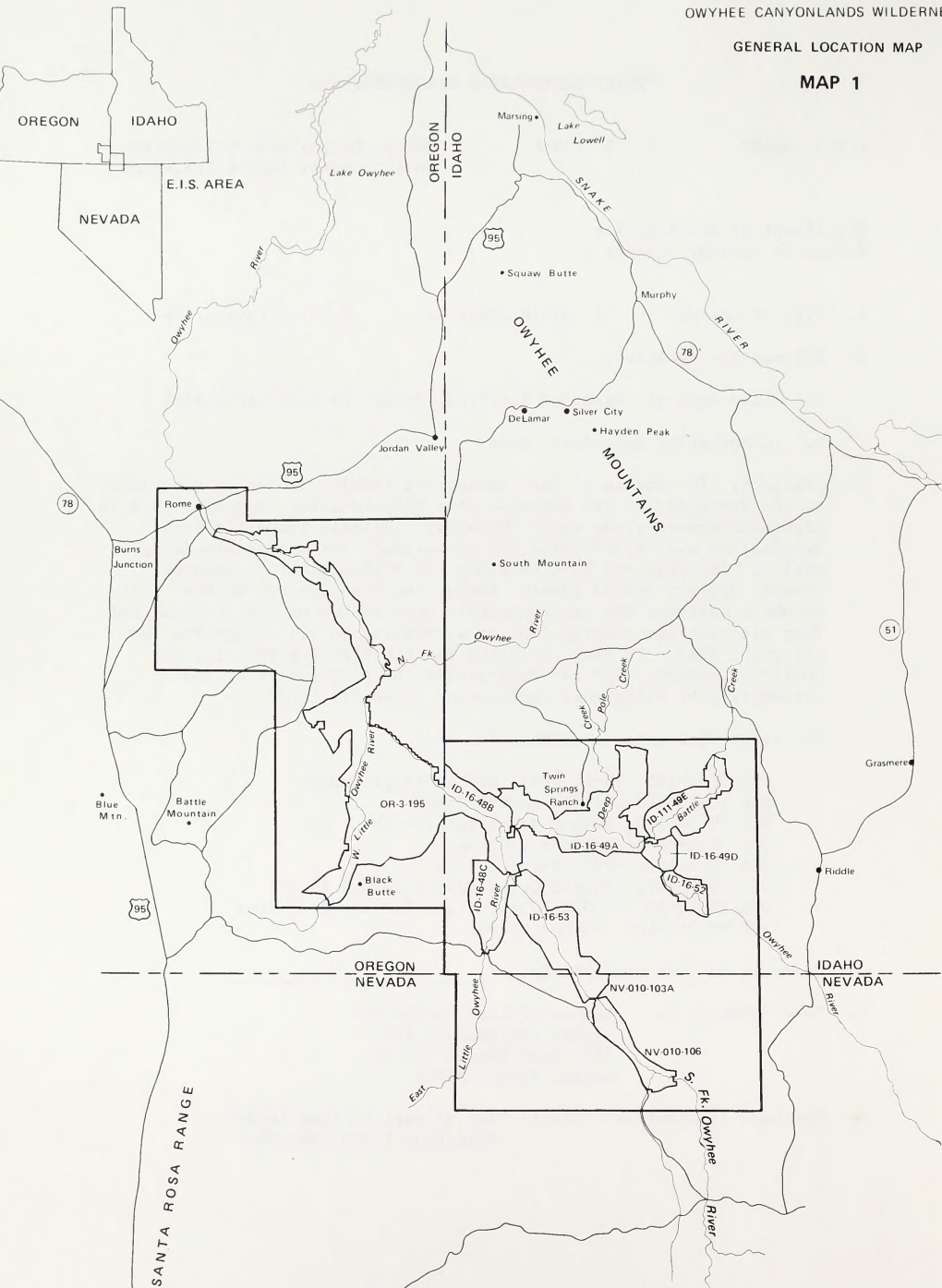
Department of the Interior
Bureau of Land Management

1. Type of Action: () Administrative (X) Legislative
2. Responsible Agencies:
 - a. Lead Agency: Dept. of Interior, Bureau of Land Management
 - b. Cooperating Agencies: None
3. Abstract: The Bureau of Land Management (BLM) proposes to recommend to the Secretary of the Interior that 374,160 acres of public land in eight wilderness study areas (WSAs) are suitable for wilderness designation and 64,467 acres are unsuitable for wilderness designation. The WSAs are located along the Owyhee River in Malheur County, Oregon; Owyhee County, Idaho; and Elko County, Nevada. This document analyzes the environmental consequences of the proposal and four alternatives ranging from no wilderness to all wilderness for the eight WSAs. It also evaluates the BLM planning criteria and quality standards used for determining the suitability or non-suitability of wilderness designation on public lands.

The eight WSAs under consideration are:

WSA OR-3-195 (ID-16-48B), Owyhee River Canyon
WSA ID-16-48C, Little Owyhee River
WSA ID-16-49A, Owyhee River-Deep Creek
WSA ID-16-49D, Yatahoney Creek
WSA ID-111(16)-49E, Battle Creek
WSA ID-16-52, Juniper Creek (Upper Owyhee River)
WSA ID-16-53 (NV-010-103A), South Fork Owyhee River
WSA NV-010-106, Owyhee Canyon

4. Comments Must Be Received By: _____
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Boise, Idaho 83705
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SUMMARY

The purpose of the Owyhee Canyonlands Wilderness EIS is to develop a recommendation concerning the suitability of wilderness designation for eight wilderness study areas (WSAs) along the Owyhee River where the states of Oregon, Idaho, and Nevada join. The EIS was prepared in conformance with the BLM Wilderness Study Policy and planning regulations 43 CFR 1600. The eight WSAs under consideration are:

WSA	Total Acres	Acres ^{1/}		
		Idaho	Oregon	Nevada
OR-3-195 (ID-16-48B); Owyhee River Canyon	214,380	33,700	180,680	0
ID-16-48C; Little Owyhee River	24,600	24,600	0	0
ID-16-49A; Owyhee River-Deep Creek	70,160	70,160	0	0
ID-16-49D; Yatahoney Creek	9,990	9,990	0	0
ID-111(16)-49E; Battle Creek	31,540	31,540	0	0
ID-16-52; Juniper Creek (Upper Owyhee River)	13,150	13,150	0	0
ID-16-53 (NV-010-103A); South Fork Owyhee River	50,352	42,510	0	7,842
NV-010-106; Owyhee Canyon	21,875	0	0	21,875
TOTAL	436,047	225,650	180,680	29,717

^{1/} Acreages previously published in intensive inventory decisions differ from those of the wilderness study because of variations in map projections and planimeter accuracy, and due to an inventory decision (December 30, 1982) by the Secretary of the Interior which eliminated WSA lands having mineral rights held by the State of Oregon.

The following issues have been identified for analysis in this EIS: the impact of wilderness designation or nonwilderness designation on livestock grazing, public access, wildlife populations, vegetation, watershed values, mineral and energy development, wilderness values and the economic impact to local livestock operators and local communities.

The five land management alternatives presented are developed based upon:

1. the issues of concern to the public and BLM managers,
2. the manageability of the WSAs as wilderness,
3. the relative wilderness values of the WSAs, and
4. the degree of conflict between competing resource values.

The acres recommended as suitable and unsuitable in the five alternatives are shown in the following table:

WSA	Proposed Action	Other Alternatives			
	All Manageable Wilderness	No Wilderness/ No Action	Canyon- lands Wilderness	Wildlife Wilderness	All Wilderness
OR-3-195 (ID-16-48B)	172,095*	0	45,000	142,570*	214,380
ID-16-48C	24,600	0	6,000	8,460	24,600
ID-16-49A	67,400*	0	18,000	55,530*	70,160
ID-16-49D	9,550	0	2,000	9,550	9,990
ID-111-49E	31,880*	0	2,200	26,380*	31,540
ID-16-52	11,170	0	3,200	9,930	13,150
ID-16-53 (NV-010-103A)	43,940	0	9,000	35,070	50,352
NV-010-106	13,525	0	1,600	0	21,875
Total Suitable	374,160	0	87,000	287,490	436,047
Total Unsuitable	64,467	436,047	349,047	151,137	0

* Includes acreage outside the WSA boundaries.

SUMMARY OF ALTERNATIVES AND ENVIRONMENTAL CONSEQUENCES

The impacts from wilderness designation or nondesignation are similar in each WSA. The summaries presented for each land management alternative refer to all WSAs unless specified.

Proposed Action

Under the Proposed Action (All Manageable Wilderness Alternative), 374,160 acres of BLM land in eight WSAs would have their wilderness characteristics preserved under a Congressional wilderness designation. Wilderness characteristics would be diminished on 63,267 acres of plateau. There are 1,200 acres of canyonlands outside the wilderness area which would continue to have their wilderness characteristics maintained under an Owyhee River area of critical environmental concern (ACEC).

On the 63,267 acres of plateau lands not designated, naturalness and opportunities for primitive recreation and solitude are expected to decline because of rangeland development projects, increased grazing use and motorized vehicle use, and potentially from mineral and energy development.

Under wilderness, the WSAs' supplemental values would be preserved, including scenic, wildlife, vegetation and cultural values. The wilderness area would provide representation of the rhyolitic canyonlands/sagebrush-bunchgrass ecosystem (Sagebrush-Steppe system) in the National Wilderness Preservation System (NWPS). The ecological condition of native vegetation would improve. The area would maintain its undisturbed natural scenic beauty. Bighorn sheep habitat would be protected from any encroachment and the bighorn population would continue to grow. Historic and prehistoric archaeological sites would

receive less disturbance and improved protection from recreation and livestock grazing.

Primitive experiences associated with river running and back packing would remain the principal recreation opportunities in the area. Semi-primitive motorized recreation use would be prohibited on 16.5 miles of roads and 77.4 miles of ways. This would cause some hunting use to be displaced onto surrounding nonwilderness lands. Boating and backpacking use is projected to increase to 13,000 user days by the year 2002 while hunting use could increase to 2,400 user days.

Wilderness designation would limit some livestock water developments and vegetation treatments, and hinder the full implementation of grazing systems needed to improve the productivity of rangelands for livestock grazing. Livestock use within the wilderness would be limited to about the level occurring at time of designation. However, the annual livestock use within affected allotments could increase 54,954 AUMs (225,698 AUMs to 280,652 AUMs) in 20 years because of increased livestock use outside of the wilderness area.

All wilderness lands would be closed to mineral and energy exploration and development, except for valid existing rights. Dam construction would be prohibited. A 1/4 mile wide utility corridor would be established along the Northwest Gas Pipeline.

Soil erosion potential would be reduced because of limitations on livestock use, the improvement in vegetation cover, and lack of other major soil disturbance activities such as mineral development.

Existing access and use of private and state inholdings would be unaffected.

Wilderness designation would not significantly impact the economic conditions of Malheur, Owyhee or Elko Counties.

No Wilderness/No Action Alternative

Under the No Wilderness/No Action Alternative, the WSAs would not have their wilderness characteristics protected by a Congressional wilderness designation. Instead, 287,000 acres within the WSAs would be managed as an area of critical environmental concern (ACEC) of 199,000 acres and a bighorn sheep habitat management area (HMA) of 88,000 acres. The management objective of the ACEC is to protect bighorn sheep habitat, scenic quality, natural values and cultural resources. The management objective of the HMA is to protect bighorn sheep habitat. Recreation use on 69,200 acres of canyonlands along the Owyhee and South Fork Owyhee River would be managed under the Owyhee River Recreation Area Management Plan to preserve the four resource values associated with the ACEC/HMA designation.

Though one of the principal objectives of the ACEC/HMA is to minimize human disturbance in bighorn sheep habitat, these designations would not prevent reductions in naturalness on the plateaus.

The naturalness of the plateaus in the Idaho WSAs would be moderately to significantly impacted by rangeland development projects (water developments, brush control treatments and seedings) intended for the benefit of livestock and wildlife. Increased forage utilization on the WSA lands would reduce naturalness by giving the land a more grazed appearance. Continued mineral and energy exploration could lead to developments which would further reduce naturalness. Increasing use of existing roads and ways combined with an overall reduction in naturalness would result in a loss of primitive recreation and solitude opportunities on the plateaus.

River running and backpacking within the canyons (unless dams are constructed) and hunting throughout the WSAs would remain the primary recreation opportunities. Boating and backpacking use is expected to reach 12,500 user days by the year 2002 while hunting should increase to 2,900 user days. No roads or ways would be closed to motorized recreation use.

Annual livestock use in affected allotments could increase by 83,273 AUMs (225,698 AUMs to 308,971 AUMs) in 20 years.

Increases in livestock use and continued motorized recreation access within WSAs could slightly increase damage or loss of archaeological sites on the plateaus.

Increased forage utilization by livestock combined with rangeland developments would also cause some loss of scenic quality.

The ecological condition of native plant communities would improve with the implementation of grazing systems. However, seeding of the plateaus to crested wheatgrass (a non-native species) could cause widespread displacement of native plant communities. Soil erosion potential would be reduced as vegetation cover improves on both native vegetation and on seeded areas.

No lands would be closed to mineral and energy development, however, stipulations would be imposed in the ACEC to protect bighorn sheep habitat. Dam construction could occur in the Owyhee River canyons.

Existing access and use of private and state inholdings would be unaffected.

There would be no significant social or economic impacts.

Canyonlands Wilderness Alternative

Under the Canyonlands Wilderness Alternative, 87,000 acres would be designated wilderness within the canyons of eight WSAs. About 198,800 acres of plateau and 2,800 acres of canyon would remain designated as a ACEC/HMA. Impacts would be similar to those described under the No Wilderness/No Action Alternative except for the following:

1. Annual livestock use in affected allotments could increase by 83,213 AUMs in 20 years (225,698 AUMs to 308,911 AUMs).
2. Approximately 2.5 miles of roads and 3.5 miles of ways would be closed to motorized recreation use. Recreation use would increase as in the No Wilderness/No Action Alternative.
3. The canyons would be closed to mineral development and potential dam construction.

Wildlife Wilderness Alternative

With the Wildlife Wilderness Alternative, 287,490 acres would be designated as wilderness in a configuration similar to the existing BLM ACEC/HMA designations. Impacts would be similar to those of the Proposed Action except an additional 86,670 acres would be open to rangeland development, motorized recreation use, and potential energy and mineral development. With the additional acreage excluded from designation, the annual livestock use in affected allotments could increase 55,356 AUMs in 20 years (225,698 AUMs to 281,054 AUMs).

There would be 15.8 miles of roads and 50.8 miles of ways closed to motorized recreation use. Recreation use is projected to be the same as in the Proposed Action.

All Wilderness Alternative

In the All Wilderness Alternative 436,047 acres would be designated as wilderness. Impacts would be similar to those in the Proposed Action except 61,887 more acres would be designated. Of this acreage, 64,107 acres could have their wilderness characteristics compromised by the continued use of livestock management developments, external influences from adjacent roads and rangeland developments, and from potential unauthorized ORV use. Existing cherry stem roads would not be closed to motorized recreation use. Though 104.3 miles of ways would be closed, the continued use of cherry stem roads could lead to unauthorized ORV use which would reduce naturalness on surrounding wilderness lands. Use of the roads would also disrupt solitude and primitive recreation opportunities. Because of continued cherry stem road access, less hunting use is expected to be displaced. Hunting use could increase to 2,600 user days while boating and hiking could increase to 13,000 user days.

The annual livestock use in affected allotments could increase by 43,583 AUMs in 20 years (225,698 AUMs to 269,281 AUMs).

OWYHEE CANYONLANDS WILDERNESS EIS

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Owyhee River Canyon

WSA OR-3-195

CHAPTER I



Owyhee River Canyon

CHAPTER I

PURPOSE AND NEED

A. INTRODUCTION

The area considered in the Owyhee Canyonlands Wilderness EIS is contained in eight wilderness study areas (WSAs) totalling 436,047 acres (Table I-1). They are clustered along the high sagebrush desert plateaus and canyonlands of the Owyhee River system where the three states of Oregon, Idaho and Nevada join. The WSAs encompass 128 miles of the Owyhee River from Highway 95 in Oregon to the Duck Valley Indian Reservation in Idaho. The WSAs also include 50 miles of the South Fork Owyhee River in Idaho and Nevada.

TABLE I-1

WSAS WITHIN THE OWYHEE CANYONLANDS WILDERNESS EIS 1/

WSA	Total	Acres		
	Acres	Idaho	Oregon	Nevada
OR-3-195, (ID-16-48B); Owyhee River Canyon	214,380	33,700	180,680	0
ID-16-48C; Little Owyhee River	24,600	24,600	0	0
ID-16-49A; Owyhee River- Deep Creek	70,160	70,160	0	0
ID-16-49D; Yatahoney Creek	9,990	9,990	0	0
ID-111(16)-49E; Battle Creek	31,540	31,540	0	0
ID-16-52; Juniper Creek (Upper Owyhee River)	13,150	13,150	0	0
ID-16-53, (NV-010-103A); South Fork Owyhee River	50,352	42,510	0	7,842
NV-010-106; Owyhee Canyon	21,875	0	0	21,875
Total	436,047	225,650	180,680	29,717

1/ Acreages previously published in intensive inventory decisions differ from those of the wilderness study because of variations in map projections and planimeter accuracy, and due to a decision by the Secretary of the Interior (December 30, 1982) which eliminated 10,020 acres of federal lands having mineral rights held by the State of Oregon. These acreages are not included in those listed above for WSA OR-3-195.

B. PURPOSE AND NEED

The purpose of the Proposed Action is to manage and preserve the wilderness characteristics on eight WSAs for present and future generations. This EIS assesses the environmental consequences of managing these areas as wilderness or nonwilderness.

The Federal Land Policy and Management Act of 1976 (FLPMA) mandates BLM to manage the public lands and their resources under the principles of multiple use and sustained yield. Wilderness values are identified as part of the spectrum of multiple land use values to be considered in BLM inventory, planning, and management. Section 603 of FLPMA requires a wilderness review of BLM roadless areas of 5,000 or more acres and roadless islands. The BLM inventory process identified wilderness study areas which have the mandatory wilderness characteristics (size; naturalness; solitude and/or primitive recreation opportunities). Suitable or unsuitable wilderness recommendations for each WSA will be presented to the President by the Secretary of the Interior. The President will then make recommendations to Congress. Areas can be designated wilderness only by an act of Congress.

C. THE BLM PLANNING PROCESS

Recommendations concerning the suitability or unsuitability of WSAs for wilderness designation were developed through BLM's planning system (43 CFR part 1600). After the WSAs were identified in the wilderness inventory, wilderness recommendations were included in management framework plans (MFPs) prepared in the Vale and Boise Districts of Oregon and Idaho. These recommendations were developed using the requirements of the BLM Wilderness Study Policy. The proposed wilderness recommendations of the Vale District Southern Malheur, and Boise District Owyhee and Bruneau Resource Area MFPs resolved conflicts among preliminary wilderness recommendations and other resource recommendations through public participation, and through consultation and coordination with adjacent BLM Districts and other agencies.

The Elko District in Nevada completed the Tuscarora Planning Unit MFP covering the affected lands in 1973 prior to the passage of FLPMA. This MFP, therefore, contains no wilderness recommendations. The Owyhee Canyonlands Wilderness EIS contains the necessary environmental analysis and informational requirements of the BLM Wilderness Study Policy to amend the Tuscarora MFP to include wilderness recommendations.

D. PLANNING ISSUES AND CONCERNS

The Owyhee Canyonlands Wilderness EIS addresses significant environmental issues and concerns relating to wilderness designation for the Owyhee River WSAs. It also evaluates planning criteria and quality standards identified in the BLM Wilderness Study Policy.

1. Planning Criteria and Quality Standards

The Study Policy's planning criteria and quality standards are an expression of national issues and concerns over wilderness designation. They are used to determine if wilderness designation is the most appropriate management option for the affected lands. Other designations which could provide protection of wilderness characteristics and supplemental wilderness values include a Congressionally designated wild

river, and/or a administratively designated area of critical environmental concern (ACEC) and bighorn sheep habitat management area (HMA). The planning criteria and quality standards evaluated in Chapter V include:

Criterion No. 1: Evaluation of Wilderness Values

Consider the extent to which each of the following components contribute to the overall value of an area for wilderness purposes.

- a. **Mandatory Wilderness Characteristics:** The quality of the area's size, naturalness, and outstanding opportunities for solitude or primitive recreation.
- b. **Special Features:** The presence or absence, and quality of the optional wilderness characteristics - ecological, geological, other features of scientific, educational, scenic, or historical value.
- c. **Multiple Resource Benefits:** The benefits to other multiple resource values and uses which only wilderness designation of the area could ensure.
- d. **Diversity in the National Wilderness Preservation System:** Consider the extent to which wilderness designation of the area under study would contribute to expanding the diversity of the National Wilderness Preservation System from the standpoint of each of the factors listed below.
 - 1) Expanding the diversity of natural systems and features as represented by ecosystems and landforms.
 - 2) Assessing the opportunities for solitude or primitive recreation within a day's driving time (5 hours) of major population centers.
 - 3) Balancing the geographic distribution of wilderness areas.

The analysis should consider federal and state lands designated as wilderness, areas officially recommended for wilderness, and other federal and state lands under wilderness study.

Criterion No. 2: Manageability

The area must be capable of being effectively managed to preserve its wilderness character, including both its wilderness characteristics and its multiple resource values. The phrase "effectively managed" means that an area can be managed to maintain the public benefits which justified wilderness designation. A wilderness must be capable of being managed over the long-term to preserve its wilderness character, both to maintain the quality of its

wilderness characteristics and to ensure continuation of its uses and multiple use benefits.

Quality Standards

Standard No. 1, Energy and Mineral Resource Values: Recommendations as to an area's suitability or non-suitability for wilderness designation will reflect a thorough consideration of any identified or potential energy and mineral resource values.

Standard No. 2, Impacts on Other Resources: Consider the extent to which other resource values or uses of the area would be foregone or adversely affected as a result of wilderness designation.

Standard No. 3, Impact of Nondesignation on Wilderness Values: Consider the alternative use of land under study if the area is not designated as wilderness, and the extent to which the wilderness values of the area would be foregone or adversely affected as a result of this use.

Standard No. 4, Public Comment: The BLM's wilderness study process will consider comments received from interested and affected publics at all levels - state, local, regional, and national. Wilderness recommendations will not be based on a vote-counting majority rule system. The BLM will develop its recommendations by considering public comment in conjunction with a full analysis of a WSA's multiple resources, and its social and economic values and uses.

Standard No. 5, Local Social and Economic Effects: The BLM will give special attention to any significant social and economic effects, as identified through the wilderness study process, which wilderness designation of the area would have on local areas.

Standard No. 6, Consistency with Other Plans: The BLM will consider and document the extent to which the recommendation is consistent with officially approved and adopted resource-related plans of other federal agencies, state and local governments, and Indian tribes.

2. Issues

To determine the scope of environmental issues, public comment was solicited from the publics in Oregon, Idaho, Nevada, Washington, California and other states. In December, 1982, over 1800 individuals, organizations and government representatives were contacted to determine their interest in the Owyhee Canyonlands Wilderness study. About 700 individuals, organizations and government agencies requested detailed scoping information. As a result of the mailings, 211 comments were received.

The scoping process identified the following significant issues and management concerns:

ISSUES

a. Livestock Management

- 1) The impact of wilderness designation on livestock grazing operations, including:
 - a) Levels of grazing use allowed.
 - b) The amount of project development or land treatment allowed.
 - c) The affect of limiting vehicle use on the ranchers' ability to manage their operations.

b. Recreation

- 1) The impact of wilderness designation on public access and recreation use of the Owyhee River and the surrounding plateaus.

c. Wildlife

- 1) The impact of wilderness vs. nonwilderness designation on wildlife habitat and population levels.
- 2) The impact of increased recreational use on bighorn sheep, Canada geese and other wildlife species.

d. Vegetation

- 1) The impact of wilderness designation on ecological condition and endangered, threatened, or sensitive plant species.

e. Watershed

- 1) The impacts of wilderness designation on watershed values including: erosion, streambank stability and water quality.
- 2) The impact of wilderness designation on dam proposals on the Owyhee River.

f. Minerals and Energy

- 1) The impact of wilderness designation on mineral and energy exploration and development.
- 2) The impact of wilderness designation on the potential for future utility corridors.

g. Economics

- 1) The economic impact to livestock operators and the local community resulting from changes in livestock use levels or livestock management practices.
- 2) The economic impact to local communities resulting from changes in recreational use.

h. Protection of Wilderness Values

- 1) The impact of wilderness or nonwilderness designation on primitive recreation, ecological, scenic and cultural values.

MANAGEMENT CONCERNS

a. Non-federal Inholdings

- 1) The impact of wilderness designation on the access and use of intermingled private and state lands.

There were numerous comments during the scoping process that were directed toward specific management concerns. Where appropriate, these suggestions were incorporated into the descriptions of the Proposed Action or alternatives. Several comments, however, were not incorporated because of conflicts with existing laws and regulations or because they were not related to the wilderness issue. The following is a list of comments not within the scope of the EIS:

1. Eliminate grazing.
2. Consider the potential the lands have to return to a pre-livestock grazing condition.
3. Shift grazing to other areas.
4. Maintain minimum flows in the Owyhee River.
5. The spiritual impacts of wilderness.
6. Whether or not land negotiations with state and private property owners would be successful.
7. Invertebrate populations and species.

E. FORMULATION OF ALTERNATIVES

The BLM Wilderness Study Policy calls for the formulation and evaluation of alternatives ranging from resource protection to resource production. The alternatives assessed in this EIS include: (1) a no wilderness/no action alternative; (2) an all wilderness alternative; and (3) three partial wilderness alternatives.

The No Wilderness/No Action Alternative advocates a continuation of present resource management and recommends the lands as non-suitable for wilderness designation.

The All Wilderness Alternative represents the maximum possible acreage that could be suitable for wilderness designation and includes the entire acreage of all eight WSAs.

The partial wilderness alternatives make suitable or non-suitable recommendations ranging between the All Wilderness and No Wilderness/No Action Alternatives. The partial wilderness alternatives were developed based upon:

1. the issues of concern to the public and land managers,
2. the ability to manage the WSAs as wilderness,
3. the relative wilderness values of the WSAs, and
4. the degree of conflict between competing resource values.

The All Manageable Wilderness Alternative optimizes wilderness resource values of those lands manageable as wilderness. WSA lands were eliminated from the wilderness recommendation because of 1) existing resource developments which impact naturalness and management for solitude or primitive recreation opportunities, 2) terrain and vegetation features which could not be realistically protected from off-road vehicle use, 3) inescapable external influences immediately adjacent to the WSA, or 4) land configuration problems resulting from private inholdings. Specific rationales for areas recommended as unsuitable are provided in the manageability section of Chapter V.

Small acreages of non-WSA lands are recommended for inclusion in the wilderness alternatives to improve or enhance management if 1) the area is public land and was part of the original roadless inventory unit, and the area has topographic features which are more definable and protectable than those within the WSA, or 2) the addition of the area would enhance the protection of significant high quality wilderness characteristics or supplemental values. The BLM wilderness study guidance recognizes the need for small expansions in the wilderness area recommendations outside WSA boundaries to improve wilderness management. Such expansions are appropriate because the policy prohibits the establishment of buffer zones of nonwilderness land around designated wilderness areas. Wilderness area should be as self-protecting as possible and include all lands necessary for the protection of wilderness values.

The Wildlife Wilderness Alternative was developed to lessen or mitigate conflicts between wilderness management and the use of land treatments and other rangeland developments for the benefit of livestock grazing, and to address public concerns over the long-term protection of habitat for expanding bighorn sheep populations and other wildlife species. This alternative also eliminates lands which are considered to be unmanageable for the protection of wilderness characteristics, and calls for small additions of public land outside the WSAs to improve wilderness management.

The Canyonlands Wilderness Alternative was developed to eliminate conflicts associated with the use of motorized vehicles for recreation, the potential development of mineral and energy resources, and the use of land treatments and structural rangeland developments to benefit livestock grazing. It also addresses a perception held by some that wilderness characteristics worthy of protection lie only within the canyons.

Many of the suggestions for modifying the preliminary alternatives presented during the scoping process have been incorporated into the alternatives selected for analysis. The following major items have been included in the Proposed Action or alternatives.

1. The All Manageable Wilderness Alternative (Proposed Action) was expanded to include lands in WSA OR-3-195 (ID-16-48B) that were recommended as suitable for wilderness in Alternative C of the Draft Malheur Land Use Plan (Malheur MFP) which emphasized protection of natural values.
2. The No Action and No Wilderness Alternatives were combined into one alternative.
3. The Bighorn Sheep Alternative was renamed the Wildlife Wilderness Alternative and expanded to include areas within WSAs ID-16-52 and ID-16-48C.

F. OTHER CONSIDERATIONS

1. Related EIS and Planning Recommendations

In March, 1979, the National Park Service (NPS) completed the Owyhee River Wild and Scenic River Study Final Report - Environmental Statement which proposed the main stem of the Owyhee River for designation as a "wild" river under the authority of the Wild and Scenic Rivers Act of 1968. Subsequently, both the BLM in Oregon and Idaho have made MFP recommendations for considering the Owyhee River and South Fork Owyhee River under the Act. No similar recommendation has yet been made in Nevada. Because we have no indication that it is going to be designated a wild river in the near future, the impact analysis for the Owyhee Canyonlands Wilderness EIS is based on what would occur without wild or scenic river designation.

An Oregon Wilderness EIS, scheduled for completion in 1984, will contain an analysis for several other WSAs in Oregon (WSAs OR-3-59, OR-3-110 and OR-3-173) associated with the Owyhee River and its tributary canyons. The proposed action and alternatives presented in the Oregon Wilderness EIS are being coordinated with those of the Owyhee Canyonlands Wilderness EIS. The location of the adjoining Oregon WSAs is shown on Map 7.

2. Wilderness Study Report and Mineral Surveys

The final Owyhee Canyonlands Wilderness EIS and the Owyhee Canyonlands Wilderness Study Report will be forwarded to the Secretary of the Interior. Areas approved as suitable for wilderness designation by the Secretary will receive mineral surveys by the Geological Survey and Bureau of Mines. The three documents will be submitted to the President who will make a recommendation to Congress.



S.F. Owyhee River Canyon

WSA ID-16-48B

CHAPTER II



S.F. Owyhee River Canyon

CHAPTER II

ALTERNATIVES INCLUDING THE
PROPOSED ACTION

A. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

1. Proposed Action (All Manageable Wilderness Alternative): Map 2

The Proposed Action recommends that 374,160 acres of public land encompassing portions of eight WSAs are suitable for designation as the Owyhee Canyonlands Wilderness. It further recommends that 64,467 acres are nonsuitable for designation.

TABLE II-1
PROPOSED ACTION
ACRES RECOMMENDED SUITABLE/NONSUITABLE AS WILDERNESS (BLM ACRES)

WSA	Nonsuitable as Wilderness				Suitable as Wilderness			
	OREGON	IDAHO	NEVADA	TOTAL	OREGON	IDAHO	NEVADA	TOTAL
OR-3-195 (ID-16-48B)	43,765	0	--	43,765	138,395	33,700	--	172,095 ^{1/}
ID-16-48C	--	0	--	0	---	24,600	--	24,600
ID-16-49A	--	3,440	--	3,440	---	67,400	--	67,400 ^{2/}
ID-16-49D	--	440	--	440	---	9,550	--	9,550
ID-111-49E	--	80	--	80	---	31,880	--	31,880 ^{3/}
ID-16-52	--	1,980	--	1,980	---	11,170	--	11,170
ID-16-53 (NV-010- 103A)	--	3,750	2,662	6,412	---	38,760	5,180	43,940
NV-010-106	--	--	8,350	8,350	---	---	13,525	13,525
BLM TOTAL	43,765	9,690	11,012	64,467	138,395	217,060	18,705	374,160

^{1/} Includes 1,480 acres of land outside the WSA boundary.

^{2/} Includes 680 acres of land outside the WSA boundary.

^{3/} Includes 420 acres of land outside the WSA boundary.

The Proposed Action constitutes BLM's preferred alternative. The wilderness acreage would include all WSA lands which are manageable to protect wilderness values. The area would be managed in accordance with the BLM Wilderness Management Policy to preserve its wilderness character. In addition to providing a natural setting for primitive recreational experiences,

management actions would also provide social and managerial settings consistent with maintaining outstanding opportunities for primitive recreation and solitude. Furthermore, the area would be managed to protect supplemental wilderness values. Grazing would continue and would be managed in accordance with allotment management plans. This proposed wilderness would be managed in conjunction with any wilderness designated within adjoining WSAs OR-3-59, OR-3-110 and OR-3-173 in Oregon (Map 7).

To facilitate management following wilderness designation, negotiations would be initiated with state land agencies and private property owners to obtain easements, develop cooperative management agreements, or to exchange lands. Cherry stem roads and some boundary roads between WSAs would be closed to public motorized use to enhance the wilderness character of the WSA complex as a whole.

The management objectives for the wilderness area would be as follows:

Resource Management

- a. Manage the area to protect its primitive environment. Maintain a natural setting which provides outstanding opportunities for solitude and for primitive and unconfined recreation activities. The area would be managed as a visual resource management (VRM) area of Class I.
- b. Maintain the free-flowing condition of the Owyhee and South Fork Owyhee River. Water quality would be maintained in accordance with state and federal water quality standards. Provide for the long-term protection of soils and the watershed with particular emphasis on stream bank stabilization.
- c. Manage the area to protect the habitats for fish and wildlife species. Cooperate with the Oregon, Idaho and Nevada wildlife agencies in protecting and restoring habitats for fish and wildlife.

Wildlife management would strive to enhance existing wildlife habitats and encourage population growth by:

- 1) preserving the natural habitat for wildlife species.
- 2) allocating sufficient forage to wildlife populations using the plateaus. Livestock use levels would be adjusted, if necessary, to provide adequate forage for bighorn population goals.
- 3) giving management priority to wildlife and fisheries within the canyonlands.
- 4) maintaining separation of use between cattle and bighorn sheep by controlling the location of new livestock water sources.

- 5) managing range resources for good ecological condition, including a prescribed burning program on the plateaus to restore wildlife habitat. Allow only natural (native plant) revegetation of treated areas.
 - 6) allowing for research studies of bighorn sheep. Trapping and transplanting by helicopter as required by state wildlife management agencies may be permitted by the State Director if no other feasible alternative exists.
- d. Manage the area to protect significant cultural resource sites and associated values. Develop a cultural resource management plan to stabilize and preserve significant historic and pre-historic sites to enhance the wilderness resource, and to allow for scientific research and excavation. Cooperate with State Historic Preservation Offices and county historical societies to protect and stabilize resources on state and private lands.
 - e. Manage livestock use in a manner which would not adversely affect the natural, wildlife, recreational and cultural values. Develop allotment management plans (AMPs) which encourage the removal of livestock from the canyons or provide for improved management within the canyons, and which provide for continued grazing on the plateaus through:
 - 1) the maintenance of existing range improvements.
 - 2) the development of new range improvements on the plateaus to restore good ecological condition of plant communities, providing they do not impair the naturalness of the wilderness nor impact wildlife populations. These projects are listed by WSA on Table II-2.

Proposed project development by grazing allotment are listed in Appendix B.

 - 3) the controlled use of motorized vehicles for salting and facility maintenance when no other reasonable alternative exists.
 - f. Designation as wilderness would prohibit further mineral entry and other forms of land entry or disposition, subject to valid existing rights.
 - g. Operations on any valid mineral rights established prior to designation, or oil and gas leases, would be accomplished under regulations designed to prevent impairment of wilderness values.

Recreation Management

- a. Manage recreation use in keeping with the capacity of the wilderness to sustain a high quality primitive experience.

TABLE II-2
PROPOSED PROJECT DEVELOPMENTS BY WSA

WSA	ALTERNATIVES											
	All Manageable Wilderness			No Wilderness/No Action			Canyonlands Wilderness			Wildlife Wilderness		
	Sagebrush Control (Acres)1/	Water Development 2/	Fences (miles)	Sagebrush Control (Acres)	Water Development 2/	Fences (miles)	Sagebrush Control (Acres)	Water Development 2/	Fences (miles)	Sagebrush Control (Acres)1/	Water Development 2/	Fences (miles)
<u>OREGON</u>												
3-195 (16-48B)	1,900	4	9	2,900	9	9	2,900	9	10.5	2,500	4	9
<u>IDAHO</u>												
3-195 (16-48B)	1,800	3	0	7,200	3	0	7,200	3	0	1,800	3	0
16-48C	0	3	2	9,900	3	2	9,900	3	2	0	3	2
16-49A	2,200	4	3	5,400	4	3	5,400	4	3	2,300	4	3
16-49D	300	0	0	700	0	0	700	0	0	300	0	0
16-52	400	0	0	1,700	0	0	1,700	0	0	700	0	0
16-53	11,200	0	0	27,900	0	0	27,900	0	0	15,000	0	0
<u>NEVADA</u>												
	0	0	0	0	0	—	0	0	0	0	0	0
TOTAL	17,800	14	14	55,700	19	14	55,700	19	15.5	28,600	14	14

1/ Brush control within the wilderness boundaries would be limited to prescribed burning to benefit wilderness values.

2/ Number of spring and reservoir developments.

(2) visitor awareness of natural and cultural resources; (3) environmentally acceptable visitor behavior to protect natural and cultural resources.

Of the 64,467 acres of nonsuitable land, 63,267 acres of plateau would be managed principally for livestock grazing and other resource values in accordance with the Southern Malheur, Owyhee and Bruneau Resource Area MFPs, and the Tuscarora Planning Unit (Elko Resource Area) MFP. Management would include improving livestock forage production through vegetation treatments and structural range improvements. The area would be managed for VRM Class III and IV. The area would be open for general motorized recreation use. Potential mineral and energy development would be allowed.

The remaining 1,200 acres of nonsuitable lands in the canyons of the South Fork Owyhee River in Nevada would continue to be managed under the ACEC designation (including the Owyhee River Recreation Area Management Plan) to protect wild river values. The area would be managed for VRM Class II.

A 1/4 mile wide utility corridor along the Northwest (El Paso) Gas Pipeline would be established for underground use only. The corridor would lie in Idaho and Nevada between WSAs ID-16-49D and 16-52, and between ID-16-53 (NV-010-103A) and NV-010-106.

2. No Wilderness/No Action Alternative: Map 3

Under the No Wilderness/No Action Alternative, 436,047 acres of public land in the eight WSAs are recommended as nonsuitable for wilderness designation. This alternative addresses the management actions that would occur if none of the WSAs were designated as wilderness.

Without wilderness designation, 287,000 acres of public land within the WSAs would be managed as an area of critical environmental concern (ACEC) and a bighorn sheep habitat management area (HMA) as shown on Map 3. The Bruneau and Owyhee Land Use Plans established a 175,000 acre ACEC within portions of the Idaho WSAs, and the Southern Malheur Land Use Plan established a 17,600 acre ACEC within portions of WSA OR-3-195. The Elko District would establish a 6,400 acre ACEC within portions of the Nevada WSAs following completion of the Elko Land Use Plan Amendment. Nevada would have ACEC management objectives consistent with those of Idaho. The three state total for the ACEC is 199,000 acres. The ACEC includes the main canyons of the Owyhee River and South Fork Owyhee River in Oregon, Idaho and Nevada. It also includes the three major tributary canyons and surrounding plateau lands of the Owyhee River and South Fork Owyhee River in Idaho and Nevada which are currently being used for bighorn sheep habitat or potentially favorable for use as habitat.

The HMA totals 88,000 acres and includes two major tributary canyons and surrounding plateaus of the Owyhee River in Oregon which are potentially favorable for use as habitat by bighorn sheep.

Determine use levels which would provide a primitive recreational experience with a high degree of solitude, and would cause minimal adverse impacts to vegetation, cultural, and wildlife resources.

- b. Provide only the minimally necessary public use facilities and road access to retain the areas' primitive character. Provide for continued public road access to the river or private inholdings at the locations shown below. Roads would be maintained at their present level of construction, except in WSA NV-010-106 as described below. Acquire access easements across private land where needed.

1) Owyhee River:

- a) Garat Crossing (Pipeline Crossing, Idaho) between WSAs ID-16-49D and 16-52.
- b) Battle Creek confluence between WSAs ID-16-49A, 16-49D and 111-49E.
- c) Crutcher's Crossing between WSAs OR-3-195 (ID-16-48B) and ID-16-49A.
- d) Three Forks adjacent to WSA OR-3-195 (ID-16-48B).

2) South Fork Owyhee River

- a) Pipeline Crossing, Nevada, between WSAs ID-16-53 (NV-010-103A) and NV-010-106.
- b) 45 Ranch between WSAs OR-3-195 (ID-16-48B), ID-16-48C and ID-16-53 (NV-010-103A).
- c) Coyote Hole in WSA ID-16-53 (NV-010-103A).
- d) Following wilderness designation, and the release of nonsuitable WSA lands from the Wilderness Interim Management Policy, consider upgrading the road access into WSA NV-010-106 at Twelve Mile. The upgraded road would provide public access to the river and serve as part of the southern boundary of the wilderness area. Construction standards should not exceed those at other major Owyhee River access points.

All other vehicle routes to the river or across plateaus within the wilderness area would be closed to general public use.

- c. Monitor and evaluate visitor and resource management programs to identify needed plan modifications.
- d. Manage commercial river use through the issuance of special recreation use permits. Establish a mandatory permit system for noncommercial users only when monitoring indicates daily or seasonal use capacities are being reached and no other management options are effective in controlling use.
- e. Develop an informational program to aid visitor and resource management. The program should focus on (1) visitor safety;

The nonsuitable acreage recommendations for each of the eight WSAs are shown below:

TABLE II-3

NO WILDERNESS/NO ACTION ALTERNATIVE
ACRES RECOMMENDED AS NONSUITABLE (BLM ACRES)

WSA	Nonsuitable as Wilderness			
	OREGON	IDAHO	NEVADA	TOTAL
OR-3-195 (ID-16-48B)	180,680	33,700	--	214,380
ID-16-48C	--	24,600	--	24,600
ID-16-49A	--	70,160	--	70,160
ID-16-49D	--	9,990	--	9,990
ID-111-49E	--	31,540	--	31,540
ID-16-52	--	13,150	--	13,150
ID-16-53 (NV-010-103A)	--	42,510	7,842	50,352
NV-010-106	--	--	21,875	21,875
BLM TOTAL	180,680	225,650	29,717	436,047

Of the 287,000 acres in the ACEC/HMA, 88,200 acres lie within canyons and 198,800 acres cover plateaus.

The Idaho portion of the ACEC was established to protect wildlife (bighorn sheep), natural and scenic values associated with the Owyhee Canyonlands. Special management requirements include the following:

- a. Manage recreation use on the Owyhee River and South Fork Owyhee River in accordance with the Owyhee River Recreation Area Management Plan (1983). Under this plan, recreation management would strive to maintain the wild and primitive character of the canyons, and protect opportunities for high quality primitive recreation experiences. Adverse recreation impacts on natural, wildlife and cultural values would be minimized.
- b. Prevent activities or developments which would impair the scenic quality of the area. The area would be managed as a visual resource management (VRM) Class II area.
- c. Allow motorized vehicle use only on designated roads and

trails. All existing roads and ways would remain open for general public use.

- d. Management priority for the canyons would be for wildlife. Protection would also be given to natural, scenic and cultural values. Where necessary to prevent livestock access to canyons, livestock management (ie. salting) or fencing would be provided in accordance with allotment management plans.
- e. Livestock management would include the following:
 - 1) Develop allotment management plans to maintain or improve the vegetation to at least a good range condition class. Develop livestock water facilities and fences. Use prescribed burning and other land treatment methods on the plateaus to increase forage production for both bighorns and livestock. Treated areas could be seeded to non-native species such as crested wheatgrass.
 - 2) Maintain a separation of use between cattle and bighorns by not developing livestock water sources within bighorn habitat unless the potential adverse impacts to bighorn could be avoided or mitigated.
 - 3) Prohibit conversion of cattle use to domestic sheep use unless the use would not be within one mile of bighorn habitat and a separation of use could reasonably be maintained by physical barriers such as fences and canyons.
 - 4) Adjust livestock use levels, if necessary, to provide adequate forage for bighorn population goals.
- f. Retain public lands within the ACEC.
- g. Support the public acquisition of private lands and the exchange of state lands within the ACEC.
- h. Maintain the current low level of human disturbance in the ACEC by avoiding the construction or upgrading of any roads that would increase human use in bighorn habitat.
- i. Research, trapping and transplanting of bighorn sheep by helicopter or vehicle as required by state wildlife management agencies would be allowed.
- j. Allow oil and gas exploration with stipulations for no surface occupancy within bighorn sheep habitat.

The Oregon portion of the ACEC was established to protect natural, scenic and cultural values for the Owyhee River Canyon. Special management requirements identified include those listed

below. These management requirements have been incorporated into the Owyhee River Management Plan.

- a. Close the area to ORV use.
- b. Erect barriers and signs to defer ORV use and protect the fragile environment.
- c. Continue river patrols during the spring boating season to monitor and prevent overuse which may damage sensitive values.
- d. Conduct studies of river carrying capacity and then regulate river use to prevent damage to sensitive plant, fish and wildlife habitats.

The principal objective of the Oregon HMA would be to protect the natural conditions of potential bighorn sheep habitat. Motorized vehicle use would be limited to existing roads and trails. The area would be managed for VRM Class II. Livestock forage production and utilization would continue.

There are 149,047 acres of WSA land which would not be identified for any special BLM administrative designation. They would be managed principally for livestock grazing and other resource values in accordance with the Southern Malheur, Owyhee and Bruneau Resource Area MFPs, and the Tuscarora Planning Unit (Elko Resource Area) MFP. Management would include vegetation land treatments and structural range improvements aimed at improving livestock forage production (Table II-2). The area would be managed for VRM Class III and IV. The area would be open for general motorized vehicle use.

The entire 436,047 acres within the WSAs would be open for mineral and energy exploration and development subject to the ACEC stipulations to protect bighorn sheep habitat. A 1/4 mile wide utility corridor would be established along the Northwest (El Paso) Gas Pipeline.

3. Canyonlands Wilderness Alternative: Map 4

Under this alternative, 87,000 acres of public land within the canyons of the eight WSAs are recommended as suitable for wilderness designation. Management of the canyonlands would be the same as that described under the Proposed Action.

There are 349,047 acres which would not be designated as wilderness. Of this unsuitable acreage, 1,200 acres of canyons along the South Fork Owyhee River in Nevada and about 198,800 acres of the plateaus would be managed under the ACEC/HMA as described in the No Wilderness/No Action Alternative. The 149,047 acres of plateau outside the ACEC/HMA would be managed

principally for improved livestock forage production and other resource uses.

The acreage by WSA for this alternative would be as follows:

TABLE II-4

CANYONLANDS WILDERNESS ALTERNATIVE
ACRES RECOMMENDED SUITABLE/NONSUITABLE AS WILDERNESS (BLM ACRES)

WSA	Nonsuitable as Wilderness				Suitable as Wilderness			
	OREGON	IDAHO	NEVADA	TOTAL	OREGON	IDAHO	NEVADA	TOTAL
OR-3-195 (ID-16-48B)	147,680	21,700	--	169,380	33,000	12,000	--	45,000
ID-16-48C	---	18,600	--	18,600	--	6,000	--	6,000
ID-16-49A	---	52,160	--	52,160	--	18,000	--	18,000
ID-16-49D	---	7,990	--	7,990	--	2,000	--	2,000
ID-111-49E	---	29,340	--	29,340	--	2,200	--	2,200
ID-16-52	---	9,950	--	9,950	--	3,200	--	3,200
ID-16-53 (NV-010-103A)	---	35,210	6,142	41,352	--	7,300	1,700	9,000
NV-010-106	---	---	20,275	20,275	--	--	1,600	1,600
BLM TOTAL	147,680	174,950	26,417	349,047	33,000	50,700	3,300	87,000

4. Wildlife Wilderness Alternative: Map 5

Under this alternative, 287,490 acres of public land are recommended as suitable for wilderness designation to incorporate portions of seven WSAs. The wilderness acreage would include only those canyonlands and plateaus which are manageable as wilderness and are existing or potential habitat for California bighorn sheep populations. These lands also provide for the habitat needs of other principal wildlife species associated with the rhyolite canyonlands/sagebrush-bunchgrass ecosystem. Wilderness management would be as described under the Proposed Action.

There are 151,137 acres which would not be designated as wilderness. Of this nonsuitable acreage, 2,800 acres of canyon along the South Fork Owyhee River in Nevada would be managed under the ACEC as described in the No Wilderness/No Action Alternative. About 148,337 acres of the plateaus would be managed principally for improved livestock forage production and other resource uses.

The acreage recommendation for each of the WSAs are shown on the following table:

TABLE II-5

WILDLIFE WILDERNESS ALTERNATIVE
ACRES RECOMMENDED SUITABLE/NONSUITABLE AS WILDERNESS (BLM ACRES)

WSA	Nonsuitable as Wilderness				Suitable as Wilderness			
	OREGON	IDAHO	NEVADA	TOTAL	OREGON	IDAHO	NEVADA	TOTAL
OR-3-195 (ID-16-48B)	72,990	300	--	73,290	109,170	33,400	--	142,570 <u>1/</u>
ID-16-48C	--	16,140	--	16,140	---	8,460	--	8,460
ID-16-49A	--	15,310	--	15,310	---	55,530	--	55,530 <u>2/</u>
ID-16-49D	--	440	--	440	---	9,550	--	9,550
ID-111-49E	--	5,580	--	5,580	---	26,380	--	26,380 <u>3/</u>
ID-16-52	--	3,220	--	3,220	---	9,930	--	9,930
ID-16-53 (NV-010-103A)	--	10,970	4,312	15,282	---	31,540	3,530	35,070
NV-010-106	--	--	21,875	21,875	---	---	0	0
BLM TOTAL	72,990	51,960	26,187	151,137	109,170	174,790	3,530	287,490

1/ Includes 1,480 acres of land outside the WSA boundaries.

2/ Includes 680 acres of land outside the WSA boundaries.

3/ Includes 420 acres of land outside the WSA boundaries.

5. All Wilderness Alternative: Map 6

Under this alternative, all 436,047 acres of BLM land within the eight WSAs are recommended as suitable for wilderness designation. Management would be the same as described under the Proposed Action, except measures to enhance manageability (road closures and land acquisition) would not occur, nor would the 1/4 mile wide utility corridor along the Northwest Gas Pipeline.

The acreage recommendations for each of the eight WSAs are shown on the following table:

TABLE II-6

ALL WILDERNESS ALTERNATIVE
ACRES RECOMMENDED SUITABLE AS WILDERNESS (BLM ACRES)

WSA	Suitable as Wilderness			
	OREGON	IDAHO	NEVADA	TOTAL
OR-3-195 (ID-16-48B)	180,680	33,700	--	214,380
ID-16-48C	--	24,600	--	24,600
ID-16-49A	--	70,160	--	70,160
ID-16-49D	--	9,990	--	9,990
ID-111-49E	--	31,540	--	31,540
ID-16-52	--	13,150	--	13,150
ID-16-53 (NV-010-103A)	--	42,510	7,842	50,352
NV-010-106	--	--	21,875	21,875
BLM TOTAL	180,680	225,650	29,717	436,047

B. OTHER ALTERNATIVES CONSIDERED

Other alternatives were suggested by the public during the scoping process. These suggestions were carefully evaluated but were not included for analysis in this EIS. Most of the suggestions were to modify the configuration of wilderness boundaries or to create additional partial wilderness alternatives using only a portion of the WSAs. Because the WSAs have wilderness characteristics of similar quality, excluding some WSAs entirely was not considered viable. The development of the three partial alternatives for the EIS was based on resource issues, wilderness management problems, resource conflicts and the quantity and/or quality of supplemental wilderness values.

C. RELATIONSHIP OF ALTERNATIVES TO NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) GOALS

Section 101 of NEPA outlines a national environmental policy that all federal agencies must carry out. To do this, agencies must use all practicable means to ensure that their actions fulfill six goals. These goals are listed below, and the relationships of the Proposed Action and alternatives to these six goals are discussed.

1. Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.

All of the alternatives would tend to improve the basic resources of soil, water and vegetation. However, the natural condition of the area would be better protected under alternatives which propose wilderness designation.

2. Ensure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings.

All of the alternatives would achieve this goal. The No Wilderness/No Action Alternative would allow for the development of projects which could impair the natural scenic values of the area.

3. Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.

Under the various alternatives, wilderness designation would preclude mineral and energy development and some proposed livestock management projects. However, the favorability of the area for mineral and energy development is generally low. Without wilderness designation, wilderness characteristics may be lost.

4. Preserve important historic, cultural and natural aspects of our national heritage, and maintain, whenever possible, an environment which supports diversity and variety of individual choice.

The preservation of historic and cultural aspects would not be significantly different under any alternative. The wilderness alternatives would best preserve the natural aspects of the area.

5. Achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities.

There appears to be no differences among the alternatives in achieving this NEPA goal.

6. Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

Renewable resources such as vegetation and wildlife would be enhanced by implementation of any of the alternatives. None of the alternatives would affect the recycling of depletable resources.

D. SUMMARY OF ENVIRONMENTAL CONSEQUENCES

A summary of the environmental consequences for each land management alternative is presented in Table II-7 located on the following pages.

TABLE II-7. COMPARATIVE IMPACT SUMMARY
(Narrative refers to all WSAs unless specified)

All Manageable Wilderness Alternative	No Wilderness/No Action Alternative	Canyonlands Wilderness Alternative	Wildlife Wilderness Alternative	All Wilderness Alternative
Wilderness characteristics on 374,160 acres in eight WSAs preserved or enhanced by wilderness designation. Wilderness characteristics on 63,267 acres of plateau diminished in portions of WSA OR-3-195, NY-010-106, & ID-16-49A, 16-52 & 16-53 (NY-010-103A). Wilderness character on 1,200 acres of canyon in WSA NY-010-106 maintained by ADEC management. Naturalness, solitude & primitive recreation of wilderness area enhanced by closure of roads & ways to motorized recreation use & the implementation of grazing systems with limitations on grazing use levels & rangeland developments. Naturalness, solitude & primitive recreation reduced on non/wilderness areas because of increased motorized vehicle use, land treatment projects (Idaho WSAs), increased grazing use levels (WSA OR-3-195) & additional rangeland developments. Mineral & energy development could also potentially reduce wilderness characteristics on non/wilderness areas.	Wilderness characteristics within 88,200 acres of canyon in eight WSAs maintained by BLM ADEC/HMA designation. Wilderness characteristics on 136,800 acres of plateau within ADEC/HMA in all WSAs, except NY-010-106, moderately reduced by wildlife & livestock management projects (land treatments & structural range improvements) & increased grazing use levels. Wilderness characteristics on non-ADEC/HMA plateau lands of all eight WSAs significantly impacted by more intensive livestock management projects & motorized vehicle use as well as from potential energy development. Dam construction along the Owyhee River would remain a continual threat to the wilderness character of the canyons.	Impacts would be as described under No Wilderness/No Action Alternative except wilderness characteristics in canyons preserved by 87,000 acre wilderness area in eight WSAs & by 1,200 ADEC designation (WSA NY-010-106).	Wilderness characteristics preserved or enhanced on 287,490 acres in seven WSAs. Wilderness characteristics in WSA NY-010-106 not preserved by wilderness designation. Wilderness character on 2,800 acres of canyon in WSA NY-010-106 maintained by ADEC management. Wilderness characteristics diminished on 148,337 acres of plateau in portions of WSA OR-3-195, NY-010-106, ID-16-49A, 16-52 & 16-53 (NY-010-103A). No loss of wilderness character in WSA ID-16-49B & 16-49D. Impacts to naturalness, solitude & primitive recreation would be as described under All Manageable Wilderness Alternative.	Wilderness characteristics maintained on 436,047 acres in eight WSAs. No loss of wilderness character in any WSA. However, potential to enhance wilderness characteristics reduced because roads not closed to recreation use. Also, the failure to acquire state & private holdings could result in incompatible uses & additional access routes which could impair wilderness characteristics in portions of the WSAs.

TABLE II-7. COMPARATIVE IMPACT SUMMARY
(Narrative refers to all WSAs unless specified)

All Manageable Wilderness Alternative	No Wilderness/No Action Alternative	Canyonlands Wilderness Alternative	Wildlife Wilderness Alternative	All Wilderness Alternative
Scenic Values				
Scenic quality in all eight WSAs would not be significantly affected by any of the five alternatives under current management objectives. Visual Resource Management (VRM) under each alternative calls for maintaining a high degree of natural scenic quality (VRM Class I or II) in the WSAs; canyons & interior plateau areas. Even under the less restrictive VRM Class III & IV areas of the WSAs' peripheral plateaus, extensive rangeland development would only slightly reduce scenic quality. Only the possibility of dams on the Owyhee River, extensive mineral development or high voltage powerline installation permitted in future planning efforts under the No Wilderness/No Action Alternative would seriously degrade scenic quality of the WSAs.				
Vegetation -				
374,160 acres of the rhyolite canyonlands/sagebrush-bunchgrass ecosystem would be represented in the National Wilderness Preservation System (NWPS). Ecological condition of natural plant communities would improve in all eight WSAs, except in nonwilderness areas where seedlings to non-native species occur.	There would be no representation of the rhyolite canyonlands/sagebrush-bunchgrass ecosystem within the NWPS. On the plateaus, seeding to non-native or "naturalized" species could disrupt the natural plant community. Dam construction could inundate the habitats of threatened & endangered plants in the canyons. Overall ecological condition of native vegetation would improve in all eight WSAs, except where seeding to non-native species occur.	87,000 acres of the rhyolite canyonlands/sagebrush-bunchgrass ecosystem would be represented in the NWPS. Plant communities on the plateaus would be excluded. Ecological condition of native plant communities would improve in all eight WSAs, except where seedlings to non-native species occur.	287,490 acres of the rhyolite canyonlands/sagebrush-bunchgrass ecosystem would be included in the NWPS. Ecological condition of native plant communities would improve in all eight WSAs, except in non-wilderness areas where seedlings to non-native species occur.	436,047 acres of the rhyolite canyonlands/sagebrush-bunchgrass ecosystem would be included in the NWPS. Ecological condition of native plant communities would improve in all eight WSAs.
Wildlife				
Current management practices (No Wilderness/No Action Alternative), as well as the proposed wilderness management practices contained in the four wilderness alternatives, would protect wildlife habitats & maintain or increase wildlife populations. California bighorn sheep populations would increase under each alternative. Population growth rates & habitat expansion would be tied to game management practices by BLM and state wildlife agencies rather than by land designations. The only significant difference between alternatives is that the No Wilderness/No Action Alternative would not prohibit the loss of canyon wildlife habitats & populations to reservoir construction nor development of potential mineral & energy resources.				

TABLE II-7. COMPARATIVE IMPACT SUMMARY
(Narrative refers to all WSAs unless specified)

All Manageable Wilderness Alternative	No Wilderness/No Action Alternative	Canyonlands Wilderness Alternative	Wildlife Wilderness Alternative	All Wilderness Alternative
Cultural Values - The closure of ways & some roads to public motorized use & limitations on increases in livestock grazing would reduce damage to cultural sites within the wilderness area.	Within the river canyons, cultural resources would receive protection under the Owyhee River Recreation Management Plan. On plateaus, cultural resources would deteriorate at a slightly increased rate due to increased livestock grazing & greater motorized recreation use. Dam construction could flood sites within canyons.	Within the canyons, cultural values would be protected. On the plateaus, archaeological sites would deteriorate at an increased rate as in the No Wilderness/No Action Alternative.	The closure of ways & some roads to public motorized use & limitations on increases of livestock grazing would reduce damage to cultural sites within the wilderness area.	The closure of ways to public motorized use & limits placed on increases in livestock grazing would reduce damage to cultural sites in the wilderness area. Leaving roads within the wilderness area open to public motorized use would somewhat offset this positive impact.
Recreation - Total recreation use of the WSAs would increase by about the same amount (by the year 2002) under each alternative. Total use is expected to increase equally in each WSA on a per acre basis. Boating & backpacking use should increase to a greater degree than hunting. Specific impacts by alternative are as follows: Physical & social setting necessary for outstanding primitive recreation experiences enhanced on 374,160 acres in eight WSAs by wilderness designation. Primitive recreation opportunities within 1,200 acres of river canyon in WSA NW-010-106 maintained by ADEC management. Semi-primitive motorized recreation experiences lost due to the closure of roads & 77.4 miles of ADEC/HMA land open to unrestricted hunting access and displacement of hunting use to surrounding non-wilderness areas. Existing motorized recreation access into the canyons	Primitive recreation opportunities within 88,200 acres of river canyons in eight WSAs maintained by BLM ADEC/HMA designation. Primitive & semi-primitive motorized recreation opportunities on 198,800 acres of plateau in seven WSAs maintained (plateaus of WSA NW-010-106 not included in ADEC). Motorized recreation use allowed to continue on all existing roads & ways within ADEC/HMA. 149,047 acres of non-ADEC/HMA land open to unrestricted motorized recreation use. Motorized access to S-F. Owyhee River in WSA NW-010-106 could be improved by reconstruction of Twelve Mile Road. Total	Impacts similar to those described under No Wilderness/No Action Alternative except primitive recreation opportunities of river canyons preserved by 87,000 acre wilderness designation & 1,200 acre ADEC designation; 2.5 miles of road & 3.5 miles of ways closed to semi-primitive motorized recreation use; potential dam construction or mineral development along Owyhee River would not threaten primitive recreation opportunities in canyons. Total recreation use could increase to 15,400 user days by year 2000.	Physical & social settings necessary for outstanding primitive recreation experiences enhanced on 287,490 acres in seven WSAs. None of WSA NW-010-16 included in wilderness designation, but primitive recreation opportunities maintained within its 2,800 acre river canyon by ADEC management. Semi-primitive motorized recreation experiences lost due to closure of 15.8 miles of road & 50.8 miles of ways. Whitewater boating & hunting access affected as in All	Primitive recreation opportunities maintained on 436,047 acres in eight WSAs. Semi-primitive motorized recreation use allowed to continue on 38.25 miles of road, including the boating access roads into the river canyons. Semi-primitive motorized recreation use opportunities lost on 104.3 miles of ways. No lands would be open to unrestricted motorized recreation use. Roads remaining open in WSAs would result in less displacement of hunting use. Total recreation use could increase to

TABLE II-7. COMPARATIVE IMPACT SUMMARY
(Narrative refers to all MSAs unless specified)

All Manageable Wilderness Alternative	No Wilderness/No Action Alternative	Canyonlands Wilderness Alternative	Wildlife Wilderness Alternative	All Wilderness Alternative
Recreation - for whitewater boating unaffected. Motorized access to S.F. Owyhee River in MSA NW-010-106 could be improved by reconstruction of Twelve Mile Road. 63,267 acres of non-designated plateau lands open to unrestricted motorized recreation use. Total recreation use could increase to 15,400 user days by the year 2002.	recreation use could increase to 15,400 user days by the year 2002. Dam construction along the Owyhee River would continue to threaten boating, backtracking & hunting opportunities. Extensive range improvements outside the ACEC could degrade primitive & semi-primitive recreation opportunities in Idaho's MSAs. Potential mineral and energy development could reduce recreation opportunities throughout the MSAs.		Manageable Wilderness Alternative. 148,337 acres of non-designated plateau lands open to unrestricted motorized recreation use. Total recreation use could increase to 15,400 user days by the year 2002.	15,600 user days by the year 2002. The failure to acquire state & private inholdings could result in additional access routes & incompatible uses which would reduce primitive recreation opportunities in portions of the MSAs.
Livestock Grazing - Wilderness designation would reduce the capability of grazing systems within affected allotments to optimize increases in grazing use through better livestock distribution & forage utilization. The level of livestock use within wilderness areas would remain at or near the level of use occurring at the time of designation. Livestock use levels outside of wilderness area boundaries are expected to increase because of new project development, vegetation treatments and improved range condition. The potential increase in livestock use is expected to occur under each alternative is shown below:				
Total Livestock use within allotments affected by wilderness designation of the eight MSAs could increase by 54,954 AUMs (225,698 AUMs to 280,652 AUMs).	Total Livestock use within allotments affected by wilderness designation could increase by 83,273 AUMs (225,698 AUMs to 308,971 AUMs).	Total Livestock use within allotments affected by wilderness designation could increase by 83,213 AUMs (225,698 AUMs to 308,911 AUMs).	Total Livestock use within allotments affected by wilderness designation could increase by 55,356 AUMs (225,698 AUMs to 281,054 AUMs).	Total Livestock use within allotments affected by wilderness designation could increase by 43,583 AUMs (225,698 AUMs to 269,281 AUMs).
Water - Wilderness designation would prevent the construction of dams to store water for irrigation.	Dams could be constructed if rivers are not included within the National Wild & Scenic Rivers System.	Same as All Manageable Wilderness Alternative.	Same as All Manageable Wilderness Alternative.	Same as All Manageable Wilderness Alternative.

TABLE II-7. COMPARATIVE IMPACT SUMMARY
(Narrative refers to all USAs unless specified)

All Manageable Wilderness Alternative	No Wilderness/No Action Alternative	Canyonslands Wilderness Alternative	Wildlife Wilderness Alternative	All Wilderness Alternative
Soils - Potential for soil disturbance & erosion would be reduced on 375,360 acres. Within canyons, minimizing livestock use would help stabilize highly erodible stream banks & flood plains. Potential for erosion on 63,267 acres of plateau increased because of increased grazing use, rangeland development projects & potential mineral development.	ACEC/RWA management of 287,000 acres of canyon and plateau would reduce the erosion hazard in the same manner as under the All Manageable Wilderness Alternative. 149,047 acres of plateau would be susceptible to increased erosion from increased grazing use & rangeland treatment projects, & from potential mineral development.	The potential for erosion would be decreased on 88,200 acres of canyon & 198,800 acres of plateau. 149,047 acres of plateau would be susceptible to increased erosion as under the No Wilderness/No Action Alternative.	Erosion would decrease on 288,690 acres, while erosion potential would increase on about 148,337 acres as in the No Wilderness/No Action Alternative.	Erosion potential would decrease on 436,047 acres.
Lands - Ownership and use of, and access to state and private inholdings would not be significantly affected by any alternative unless there is a change in the use of the lands. Non-federal land use considerations for each alternative are as follows: Existing road access to & use of private & state lands would remain. State lands within wilderness could be acquired by exchange. Willing private landowners could negotiate easements or cooperative agreements with the BLM.	Within the ACEC, state lands could be acquired by exchange & willing private landowners could negotiate easements or cooperative agreements with BLM. Existing access & use would be retained.	Same as All Manageable Wilderness Alternative.	Same as All Manageable Wilderness Alternative.	State land would not be acquired & easements or cooperative agreements would not be negotiated from private landowners. Access to non-federal lands would be retained.
Minerals & Energy - The favorability for mineral and energy development is considered low. Any potential development would be affected as follows:	Mineral activity & development could continue. Dams & new utility corridors could be allowed in the ACEC/RWA	87,000 acres, except for valid existing rights, would be withdrawn from all forms of	287,490 acres, except for valid existing rights, would be withdrawn from all forms of	436,047 acres, except for valid existing rights, would be withdrawn from all forms of

TABLE II-7. COMPARATIVE IMPACT SUMMARY
(Narrative refers to all NSAs unless specified)

All Manageable Wilderness Alternative	No Wilderness/No Action Alternative	Canyonlands Wilderness Alternative	Wildlife Wilderness Alternative	All Wilderness Alternative
Minerals & Energy - under the mining laws. Hydroelectric dams could not be constructed & utility corridors would be limited to the 1/4 mile wide corridor along the Northwest Pipeline.	If the VPM Class II classification is changed.	appropriation under the mining laws. Dams could not be constructed & additional utility corridors could not be established.	appropriation under the mining laws. Dams could not be constructed & additional utility corridors could not be established.	appropriation under the mining laws. Dams could not be constructed. No utility corridors could be established, including the corridors along the Northwest Pipeline.
Economics -				
The following figures indicate that all alternatives are predicted to produce increases which are affected only slightly by the wilderness acreage being recommended. Livestock income and employment figures are for the entire affected allotments. Recreation income & employment figures are only for the NSAs.				
Annual Livestock Income	\$3.1 million +37%	\$3.1 million +37%	\$2.8 million +2%	\$2.7 million +3%
% Change From Present				
Annual Recreation Income	\$504,000 +283%	\$504,000 +283%	\$491,000 +273%	\$497,000 +277%
% Change From Present				
Livestock Related Employment	87 +38%	87 +38%	79 +205%	76 +21%
% Change From Present				
Recreation Related Employment	21 +307%	21 +307%	21 +307%	21 +307%
% Change From Present				
Total Annual Income	\$3.6 million +50%	\$3.6 million +50%	\$3.3 million +38%	\$3.2 million +33%
% Change From Present				
Total Employment	108 +47%	108 +59%	100 +47%	97 +43%
% Change From Present				



Owyhee River Canyon

WSA OR-3-195

CHAPTER III



Owyhee River Canyon at Oxbow Canyon

WSA ID-16-49D

DESCRIPTION OF AFFECTED ENVIRONMENT

The description of the environment covers those resources which are significantly impacted or were identified as significant issues or concerns by the public, BLM and other agencies. Resource characteristics within all WSAs are very similar; therefore, resource descriptions refer to all WSAs unless otherwise specified. Specific resource characteristics of the WSAs are addressed under each resource heading.

A. WILDERNESS CHARACTER

The BLM completed a wilderness inventory of roadless areas along the upper Owyhee River in 1982 using procedures outlined in the BLM Wilderness Inventory Handbook (1978). From this inventory, eight wilderness study areas (WSAs) were identified. Each of the eight WSAs contain mandatory wilderness characteristics (size; naturalness; solitude and/or primitive recreation opportunities) and supplemental wilderness values which meet the wilderness criteria established by the Wilderness Act of 1964 (Appendix A).

1. Wilderness Characteristics

The Owyhee River WSAs are adjoining areas encompassing 681 square miles (436,047 acres) of the high desert plateaus and canyonlands of Oregon, Idaho and Nevada. Each WSA consists of flat to gently rolling sagebrush plateaus lying at elevations of 4000 to 5500 feet. These plateaus are sharply dissected by miles of deep, meandering canyons. The WSAs stretch almost continuously along 260 miles of canyons varying in depth from 200 to 1200 feet. The WSAs are separated from one another only by several primitive (low-standard) roads and small isolated parcels of state and/or private land.

a. Naturalness:

Each of the WSAs possess a high degree of naturalness. Imprints of man are present in each WSA but they are substantially unnoticeable. Imprints are widely scattered and consist of:

- 1) range improvements including small stock ponds or reservoirs, barbed wire fences, and water troughs associated with springs,
- 2) primitive vehicle routes including 2-wheel tracks (ways) and minimally constructed cherry stem roads, and
- 3) ruins or remnants of old log or stone buildings of historic and cultural value.

Most imprints occur on the plateaus and consist of small stock ponds, many of which are serviced by primitive roads or ways. Within the canyons, imprints are limited to historic ruins and the external influences of private ranch sites and WSA boundary roads which supply access to or across the rivers. The ranch sites and/or boundary roads which lie between WSAs are encountered from one to three days apart while floating the rivers.

The location, number and relative distribution of man's imprints make for infrequent visual encounters. Visual contact with range developments and vehicle routes is extremely limited and of minimal impact because of the limited soil and vegetation disturbance associated with their construction, the small size and/or low profile of the developments, and the presence of topographic and/or vegetation screening. On the plateaus, imprints are generally obscured by sagebrush or small changes in topography within one hundred feet to several hundred yards. In the canyons, meandering walls and talus slopes screen WSA boundary roads at very close distances. Field studies conducted in 1981 documented that less than eight percent of any WSA is minimally impacted by man's imprints. The amount of visual impact from man's imprints within any one WSA is shown in Appendix A.

b. Solitude Opportunities:

Each of the WSAs possesses natural features which provide outstanding opportunities for solitude. When the WSAs are considered as a group, the overall opportunities for solitude are of exceptionally high quality.

The outstanding opportunities for solitude in each WSA are attributed to the isolated, intimate seclusion of canyonlands and the viewing of hundreds to thousands of square miles of vast, open, seemingly undisturbed desert plateau lands and distant mountain ranges.

The canyons of the WSAs are typically deep, narrow and very meandering. In many areas, sheer walls rise directly from the river beds to the rimrock. Canyon sections with sheer walls are frequently interrupted by steep talus slopes. In other areas, talus slopes are found above an inner canyon of vertical rock faces.

The meandering character of the canyon walls and river beds provide excellent topographic screening between visitor groups traveling close together. River level views up and down the canyons are limited to .25 to .5 miles. The depth of the canyons combined with limited viewing distances creates a tremendous sense of seclusion or separation from the rest of the world.

The length of canyons involved in each WSA allows visitor groups to readily find campsites which are out of sight and sound of other groups. Furthermore, the length of canyons provides ample time and distance for visitor groups to adjust their rates of travel and campsite locations to avoid interaction with other groups while floating or hiking. Along the 178 miles of river within the WSAs, there are hundreds of campsites. There are also many campsites in the tributary canyons. Because of the characteristics of these canyons, outstanding opportunities for solitude can be maintained by simply controlling the rate of visitor entry into the canyons.

The frequent breaks in the sheer canyon walls encourage recreation use of the surrounding plateau areas. The many talus slopes invite climbs to the rimrock for scenic canyon views and expansive vistas of plateau lands. From many high points on the plateaus, one can see hundreds to thousands of square miles of vast open spaces seemingly untouched by man stretching eastward from the Steens Mountains in Oregon to Juniper Mountain in Idaho, and southward to the Bull Run Mountains of Nevada. These vast open spaces instill a sense of complete separation from civilization. After leaving the plateaus and returning to a secluded camp among the narrow canyon walls, one is aware that solitude or isolation has been achieved.

c. Primitive Recreation Opportunities:

The intrinsic natural features which provide outstanding opportunities for solitude also contribute to outstanding opportunities for primitive and unconfined recreation in all WSAs but WSA ID-16-48C.

The canyonlands and plateaus provide exceptionally scenic natural features (see Scenic Quality) and a diversity of rugged landforms. These features attract people interested in hunting, backpacking and river running, and associated secondary activities of sight-seeing, outdoor photography, wildlife viewing, botanical studies and fishing. Because of the quality of these secondary activities (which are associated with supplemental wilderness values), river running opportunities are of exceptionally high quality and considered of national significance.

The miles of canyons, their diversely and severely eroded rock landscapes, their steep slopes, and the dominance of subdued brown and red rock all combine to create a sense of isolation or solitude; thereby enhancing the primitive recreation experience. Visitors traveling in or near the canyons are constantly aware of the forces of nature that have formed the severely eroded landscapes. Floating or hiking along the rivers and tributary streams

gives one a sense of participation in the movements of a natural force.

The challenge and excitement of whitewater rapids as well as several mandatory portages of rock falls add significantly to the boating experience. Hiking the rugged canyons and plateaus without the aid of established trails also provides a more natural and arduous recreational challenge which heightens the primitive experience.

The numerous talus slopes of the canyons encourage the exchange of recreation use between the rivers and plateaus. Because travel across sagebrush plateaus could generally result in a sense of monotony, recreational use of the plateau areas would tend to concentrate near the canyon rims. These rimrock areas of the plateaus often offer less arduous hiking conditions than those in the canyons and provide numerous opportunities for spectacular vistas of the canyons below. The area of use on the plateaus is likely to be fairly wide in many of the WSAs in Idaho due to the very meandering character of the canyon rimrock and the presence of major side drainages. These natural features encourage travel at greater distances from the rimrock because of easier, more straight forward hiking conditions. Furthermore, since the canyon system can be seen at greater distances on many plateau areas due to downsloping terrain, visitors can enjoy vistas at greater distances. Hiking on the plateaus also provides an opportunity to experience vast, open spaces stretching into the distant horizon. Therefore, many of the plateau areas have outstanding primitive experiences equivalent to those of the canyons.

Because of the miles of canyons available and the large size of the plateaus, quality primitive recreation experiences can last several days to a week or more in each WSA and up to several weeks in the WSA complex.

The only WSA lacking in outstanding primitive recreation opportunities is WSA ID-16-48C. This WSA is lacking in outstanding opportunities because of its relatively low scenic quality, a lack of diversity in landform, restricted mobility between the canyons and plateaus, and few opportunities for recreation activities. Though this WSA possesses less than outstanding primitive recreation values, it has a high degree of naturalness and has outstanding opportunities for solitude.

d. External Influences:

The most significant external influence affecting the WSAs is frequent low elevation flights by military aircraft. The entire southwest corner of Idaho has been established as a military operations area (MOA). This MOA

is used for training military pilots in low elevation, subsonic flight in mostly fighter-bomber type aircraft. Numerous fighter-bomber flights per day occur over different flight patterns at elevations as low as 100 feet above the surface of the plateaus. Daily low elevation flights of B-52 bombers also occur over WSA lands in Oregon. Due to the variation in flight patterns and schedules over this large area, impacts upon the solitude to visitors varies greatly from day to day and week to week. At times aircraft can be seen and/or heard flying all day. Other times one can travel for several days and not see or hear a jet.

2. Supplemental Wilderness Values

The WSAs are rich in supplemental wilderness values, including scenic, ecological, scientific, wildlife and cultural values. The supplemental values contribute significantly to the overall quality of the WSAs' wilderness character.

a. Scenic Values:

The canyonlands of the Owyhee River system are of exceptionally high scenic quality. The combination of moving water, colorful sheer cliffs, grass covered talus slopes, and blue sky combine to create a dramatic stark beauty which totally envelopes the visitor. In places reddish-brown cliffs drop hundreds of feet into the water. These fractured, blocky rock monoliths are tinted with brilliant green, yellow and orange microflora. Near the base of the cliffs, water sometimes seeps from the fractures to nourish small, lush, clinging, deep green plant communities. The monoliths are frequently topped with a multitude of diversely eroded spires. The sheer rock walls often give way to steep slopes covered with a mosaic of red rock rubble and subdued green and yellow sagebrush and grasses.

All of the WSAs' canyons possess this spectacular scenic grandeur with the exception of WSA ID-16-48C. The canyon of the East Little Owyhee River does not possess the diversity in color, texture and landform which are common place in the other WSAs.

The plateaus also add to the scenic quality of all WSAs. Deep blue sky often filled with scattered low hanging clouds dominates over a vast, open terrain blanketed with subdued green and yellow vegetation. In the spring, the subdued colors are sprinkled with brilliant blue, yellow and white flowers. In the far distance, snow capped mountains can be seen stretching along the horizon.

b. Vegetation (Ecological and Scientific) Values:

The upper Owyhee River system lies within a broad regional landform and vegetation classification known as the Intermountain Sagebrush Province/Sagebrush Steppe Ecosystem (Bailey-Kuchler, 1966). Within the WSAs, the ecosystem can be more accurately defined as a rhyolite canyonlands/sagebrush-bunchgrass ecosystem.

The canyonlands are generally comprised of about 70% rhyolitic and basaltic rock outcrop, 10% rock rubble (talus), 15% river bottomlands and 5% riparian areas. The most dominant plant species on the landscape is big sagebrush. Basin big sagebrush is commonly found on the canyon bottoms while Wyoming big sagebrush occupies the dryer slopes of the canyons. Pure stands of Idaho fescue and bluebunch wheatgrass often occupy the steep slopes, with Idaho fescue being more abundant in sheltered, moister habitats. In WSA OR-3-195(ID-16-48B) there are widely scattered junipers on the slopes of the canyons. In the moister, more sheltered areas of most WSAs, there are small stands of juniper. Juniper trees are more abundant in the Owyhee River Canyon below Three Forks, Oregon. Hackberry is also found scattered along the canyon bottoms. The vegetation in the canyons is mostly in good ecological condition with some areas being in excellent or pristine condition.

The riparian areas of the canyons are comprised mostly of grasses, rushes and sedges. Only in sheltered areas of the main canyons and tributary canyons are species of willow, aspen and cottonwood found. High water flows in winter and early spring scour the canyon bottoms and prevent growth of larger shrubs and tree species.

On the plateaus there is a vegetation mosaic of low sagebrush species, big sagebrush (mostly Wyoming big sagebrush), bunchgrasses and antelope bitterbrush. Scattered western juniper are also spread over much of the northern plateaus of Idaho within WSA OR-3-195(ID-16-48B). Big sagebrush stands occupy deeper soil sites on generally more than 50% of the land surface of the WSAs. Low sagebrush stands occupy the shallower soil sites on about 35% of the land surface with less than 15% of the plateau areas being barren. The vegetation of the plateau area is generally in good ecological condition close to the canyon rims, but in poor to fair condition over the remainder of the areas.

There are eight known plant species located in the Owyhee canyons which are classified by the scientific community as endangered, threatened, or sensitive. These plants are discussed under planning criteria in Chapter V.

c. Wildlife Values:

The Owyhee River WSAs provide excellent habitat for many species of wildlife. The primary species are California bighorn sheep, mule deer, antelope, Canada geese and other waterfowl, raptors and other birds, river otter, beaver, mountain lion and bobcat. Wildlife diversity associated with the rhyolite canyonlands/sagebrush-bunchgrass ecosystem is a result of many vegetative types that exist in unique habitat features created by the joining of sagebrush-bunchgrass plateaus and deeply cut canyons. Some species are dependent upon this ecosystem for year-round habitat, and other species can be found seasonally. For the most part, wildlife habitats are in good condition on the steep slopes and canyon bottoms and in fair to poor condition on the plateaus.

The rhyolite canyonlands/sagebrush-bunchgrass ecosystem provides yearlong habitat for bighorn sheep. The bighorn are dependent upon wildlands canyon or mountain habitat for their survival. California bighorn sheep (Ovis canadensis californiana) were successfully reintroduced in the Battle Creek, Deep Creek and Owyhee River canyon complex (WSAs ID-16-49A, 16-49D and 111-49E) during the sixties. Since that time, their population has expanded westward along the Owyhee River into WSA OR-3-195 (ID-16-48B). There is a proposal to transplant bighorn sheep into the canyon complex of the South Fork in WSA ID-16-53(NV-010-103A). Presently an estimated population of 400 bighorns inhabits the Owyhee canyonlands year around. The Idaho Department of Fish and Game's planning objectives call for a further increase of 75 sheep by 1985. The proposed South Fork transplant could eventually result in a population of over 600 bighorn sheep within Idaho and Nevada. The Oregon Department of Fish and Wildlife is also attempting to reintroduce bighorn sheep into the Owyhee River Canyon of Oregon in WSA OR-3-195(ID-16-48B).

Mule deer are the most numerous big game species in the WSAs. All of the WSAs have mule deer habitat of which most is yearlong range. Much of the canyonlands also provide crucial winter range for additional migratory deer.

Populations of pronghorn antelope are scattered throughout the WSAs and are primarily limited to the plateaus above the canyons. Important spring-summer-fall ranges for pronghorn antelope can be found in WSAs ID-16-49A, 16-49D and 16-49E. WSAs OR-3-195 (ID-16-48B), ID-16-48C, 16-53 and a portion of 16-49A are considered yearlong range.

The mountain lion is also a yearlong resident in the canyonlands. Lions increase in number as the mule deer concentrate during the winter months. The bobcat is a

yearlong resident, but does not increase in numbers during the winter.

There are about 230 miles of perennial streams and rivers in the WSAs. The associated riparian habitats of the canyon bottoms are used more than any other habitat type. The canyon bottoms provide a structural diversity offered by water, sometimes a tree layer, a shrub layer and a herbaceous layer that provide large amounts of nesting, brood rearing, hiding, escape and thermal cover for high densities of many species of wildlife, including the smaller, non-game species.

The upper Owyhee River system is a rich reproductive area for waterfowl. Four species of geese and eighteen species of ducks occur in the WSAs as residents or migrating species. Nesting geese have been reported at one mile intervals along the river shoreline.

River otter and beaver can also be found along the entire river complex. Their presence is dependent upon the maintenance of good to excellent riparian areas and the aquatic habitat conditions. However, the aquatic habitat condition within the WSAs is mostly in fair or poor condition.

The streams of the WSAs provide habitat for eight principal species of fish. The species are red band trout, smallmouth bass, dace, suckers, squawfish, shiners, chiselmouth and sculpins. The 178 perennial miles of the Owyhee River system do not support a significant trout population but do support an increasing number of smallmouth bass.

The WSAs also provide habitat for bird populations including raptors, sage grouse and chukar partridge. Golden eagles, red-tailed hawks, kestrels, prairie falcons and owls are the primary raptors found nesting in the canyonlands. Golden eagles and red-tailed hawks nest at two to three mile intervals along the main river canyons, while prairie falcons and owls frequently nest in the smaller tributary canyons. Kestrels nest throughout the canyon systems. The major canyons also serve as winter habitat for bald eagles. Sage grouse are found scattered over the plateaus and are one of the most important game birds to be found. These birds tend to winter close to the canyon rim in the vicinity of their strutting and breeding grounds. Chukar partridge are another abundant upland game bird species in the WSAs. Their habitat is located along the canyon bottoms and lower canyon slopes. Mountain quail are also found in the canyon of the South Fork Owyhee River in WSA ID-16-53 (NV-010-103A).

d. Cultural Values

The Owyhee River canyons and surrounding plateaus are rich in historic homesteads and prehistoric sites. Most of the historic resources lie on private property between or immediately adjacent to the WSAs. The major historic sites are located near the Owyhee River's confluences with Louse Canyon (West Little Owyhee River), Battle Creek Canyon, Oxbow Canyon, and the East Little Owyhee River (45 Ranch), and at Twelve Mile, Coyote Hole and Crutcher's Crossing. These sites typically consist of one or more stone buildings with partially collapsed sod roofs supported by juniper logs, or of log cabins constructed of well weathered junipers carved with names and dates of yearly visitors and settlers. Other features include waterwheels, old wagons, wooden water pipes, juniper-brush corrals, old wood stoves, and numerous miscellaneous metal pieces.

Some historic ruins are also located on public lands within the WSAs. The ruins consist mostly of small stone buildings. These ruins are located in WSAs OR-3-195 (ID-16-48B), ID-16-49A, ID-16-49D, ID-16-53(NV-010-103A) and NV-010-106.

Within the WSAs, evidence of prehistoric use includes stone tools and the chips produced in tool making. Many petroglyphs are also found in the Owyhee River canyon below Three Forks in WSA OR-3-195(ID-16-48B).

Cultural resource inventories completed by BLM have located numerous sites along the rims of the canyons and on surrounding plateaus. Prehistoric sites have also been found within some caves or beneath rock overhangs in the canyons above the rivers' high water lines. Dirty Shame Rockshelter, located in WSA OR-3-195(ID-16-48B) was excavated in 1973 (Aikens et al. 1977). Radiocarbon dates showed that the site was intermittently occupied between 4500 and 400 years ago. Periodic high water levels which erode the river terraces may have erased much of the evidence of prehistoric activity along the canyon bottoms.

B. RECREATION

Primitive outdoor recreation is characterized by opportunities for isolation from the sights and sounds of man, to feel a part of the natural environment, to have a high degree of challenge and risk, and to use outdoor skills.

The Owyhee River system offers outstanding primitive and semi-primitive recreation opportunities in a scenic, natural setting. The recreation activities available include river running, hunting, fishing, backpacking, photography, nature study, camping and horse-back riding. The Owyhee has become nationally recognized as an early-season whitewater river.

The Owyhee Wild and Scenic River Study completed in 1979 recommended to Congress that a 192-mile segment of the Owyhee River (128 miles within the WSAs) extending from the western boundary of the Duck Valley Indian Reservation to the Owyhee Reservoir should be included within the National Wild and Scenic Rivers System. To date, Congressional action has not been taken. The South Fork of the Owyhee River was not included in the study. However, the South Fork is included within the Nationwide Rivers Inventory for consideration for addition to the system and has been recommended for wild river study by the BLM.

Semi-primitive motorized recreation opportunities exist on 13 miles of boundary roads separating the WSAs and on 38.25 miles of interior (cherry stem) roads. There are also 104.3 miles of two-wheel tracks or ways within the WSAs which provide additional semi-primitive motorized recreation opportunities. There are no developed foot trails. Travelers on foot or horseback must follow big game or livestock trails, primitive roads, or journey cross-country. The lack of developed trails serves to disperse users and to provide greater challenges to recreationists.

The road access put-in points for boaters are:

Owyhee River

1. Duck Valley Indian Reservation, Idaho
2. Northwest Gas Pipeline (Garat Crossing), Idaho
3. Crutcher's Crossing, Idaho
4. Three Forks, Oregon

South Fork

1. YP Ranch, Nevada
2. Northwest Gas Pipeline, Nevada
3. 45 Ranch, Idaho

Hunting and whitewater boating are the two most popular recreation activities within the area. Visitation for other activities is light when compared to hunting and boating because the outstanding recreation opportunities are little known to recreationists and because a wealth of similar resources exist elsewhere within Oregon, Idaho and Nevada. This results in a wide dispersion of regional recreation use.

The hunting seasons vary between the three states. Seasons generally run from September through February depending upon wildlife species. The principal big game species hunted are mule deer and antelope. Mountain lion and bighorn sheep are also hunted in limited numbers. Total 1982 hunting use within the WSAs for the three states is estimated at 1700 user days.

The Owyhee River and the South Fork Owyhee River can be floated during the high water period from February through June. Most boating use occurs from mid-April to mid-June, with highest use

during the Memorial Day weekend. Boating use on the entire river system has increased from about 500 people in 1974 to over 2000 people by 1980. In 1982, boating use on the portion of the rivers within the WSAs was about 90 trips with a total of 600 participants, with one-third of the trips originating above Three Forks. Seventeen percent of these trips were run by commercial operators. About 1000 days of boating use occurred above Three Forks in 1982, while 1130 days occurred from Three Forks to Rome.

The Owyhee River Recreation Area Management Plan completed by the BLM in 1983 established the following interim carrying capacities for boating use within the WSAs river canyons (69,200 acres) during a 91-day control period (April 1 - June 30).

TABLE III-1

OWYHEE RIVER CARRYING CAPACITIES WITHIN WSAs

	Starts/day (parties)	Max. Party Size	Parties/ Year	People/ Year	User Days
Above Three Forks	2	15	182	2,730	13,650
Three Forks to Rome	4	15	364	5,460	16,380
TOTAL	<u>6</u>	<u>--</u>	<u>546</u>	<u>8,190</u>	<u>30,030</u>

The above total annual carrying capacity should not be reached by the year 2000. However, daily carrying capacities have already been surpassed on some days, especially on weekends during the latter part the boating season.

C. LIVESTOCK GRAZING

1. Grazing Allotments

Public lands within the WSAs play an important role in providing livestock forage. Collectively, the WSAs affect 23 allotments and 56 range users. There are 10 allotments and 35 range users affected by WSA lands in Oregon. The WSA lands in Idaho affect 10 allotments and 19 range users. In Nevada, three allotments and two range users are affected. Allotment size, active preference (Animal Unit Months - AUMs) and related information is given on Table III-2. The affected allotments are currently undergoing adjustments in active preference to balance livestock use with forage production.

Livestock operators use existing roads and ways to check livestock, distribute salt and to inspect or maintain range developments.

2. Range Developments

On an allotment basis, grazing systems have been designed to foster proper livestock use and correspondingly improve range condition. Implementation of these systems and improvement of the range is dependent upon existing and in some cases proposed

TABLE III-2. AFFECTED GRAZING ALLOTMENTS

Affected Allotment	Total Allotment Size (Acres)	Allotment Active Preference (AUMs)	Allotment Acres Within WSAs	% Allotment Within WSA	% WSA Within Allotment
OREGON					
Arock #1001	65,811	9,519	OR-3-195	11	4
Willow Creek #1004	68,446	10,618	OR-3-195	5	2
Raburn #1005	5,856	1,040	OR-3-195	18	<1
Whitehorse #1008	28,451	4,478	OR-3-195	8	1
Jackies Butte #1101	211,648	14,334	OR-3-195	15	17
Ambrose Maher #1102	4,002	580	OR-3-195	100	2
Campbell #1306	155,947	14,518	OR-3-195	9	7
Louse Canyon Community #1307	127,642	11,579	OR-3-195	20	14
Anderson #1401	39,405	2,964	OR-3-195	100	21
Star Valley Community #1402	183,180	6,852	OR-3-195	31	31
			TOTAL		
			183,490		
NEVADA					
Petan-Owyhee #1019	10,324	2,094	NV-010-106	25	12
Owyhee #1024	369,653	30,225	NV-010-103A	1	28
			NV-010-106	4	62
			Total	5	53
YP #1037	96,795	13,023	NV-010-103A	5	72
			NV-010-106	6	27
			Total	11	38

TABLE III-2. AFFECTED GRAZING ALLOTMENTS (Continued)

Affected Allotment	Total Allotment Size (Acres)	Allotment Active Preference (AUMs)	Allotment Acres Within WSAs	% Allotment Within WSA	% WSA Within Allotment
<u>IDAHO</u>					
Garat Individual #0524	963	80	ID-16-48B 130	13	<1
Bull Basin #0540	44,403	3,726	ID-16-48B 12,045 ID-16-49A 3,265 Total 15,310	27 7 34	36 4 15
Sheep Hills #0551	20,699	1,200	ID-16-49A 11,270	54	16
Garat #0584	207,219	33,305	ID-16-48B 7,920 ID-16-49A 21,750 ID-16-49D 4,745 ID-16-52 5,855 ID-16-53 21,625 Total 61,895	4 10 2 3 10 29	24 32 47 45 51 37
Crutcher Crossing #0593	3,665	138	ID-16-48B 1,850 ID-16-49A 1,815 Total 3,665	50 50 100	5 3 4
"45" #0629	123,420	3,852	ID-16-48B 11,755 ID-16-48C 24,680 ID-16-53 20,885 Total 57,320	10 20 17 47	35 100 49 57
Castlehead-Lambert #0634	45,623	3,123	ID-16-49A 10,300	23	15
Big Springs #0803	192,552	17,851	ID-16-49A 21,760 ID-111-49E 17,200 38,960	11 9 20	31 55 38
Riddle #0805	189,800	27,199	ID-16-49D 5,245 ID-111-49E 13,890 ID-16-52 7,295 Total 26,430	3 7 4 14	53 44 55 48
Northwest #0808	231,467	13,400	ID-111-49E 450	<1	1

structural rangeland improvements and vegetation manipulation projects. There are currently 78 reservoirs, 4 developed springs and 58 miles of fence throughout the WSAs. An estimate of additional projects that would be implemented under the various alternatives is shown on Table II-2.

D. WATER

The WSAs encompass 681 square miles of the middle elevations of the Owyhee River drainage system. Within the WSAs are over 260 miles of major water courses including 128 miles of the Owyhee River and 50 miles of the South Fork Owyhee River. These rivers drain the northern mountain systems of Nevada. In addition to the 178 miles of rivers, there are over 82 miles of major tributary streams. The streams and rivers have high, rapidly fluctuating flows during the winter and spring. The Owyhee River at Rome, Oregon (just downstream from the WSA complex), can have flows varying between 1,000 and 30,000 cubic feet of water per second (c.f.s.) during the winter and spring. By mid to late summer, river flows can be at 100 to 200 c.f.s. By late summer, many of the tributary streams will develop pools and retain very low subsurface flows. Other tributary streams will dry up completely.

Though there are many miles of intermittent and perennial water courses, the lands of the WSAs provide only a small percentage of water to the Owyhee River system. Most water comes from the northern Nevada mountain ranges and higher desert lands in Idaho to the north of the WSAs.

Studies were done in the early 1970's to determine the feasibility of constructing several dams on the Owyhee River in Oregon to capture its high winter and spring flows for summer irrigation. These dams would have inundated all the canyonlands of WSA OR-3-195 (ID-16-48B) and portions of WSA ID-16-49A, ID-16-48C and ID-16-53. The studies, however, indicated that the dams were not economically feasible. There are currently no dams under active consideration, proposed or authorized.

The water quality of the Owyhee River is affected by sedimentation and pollution from both human and animals sources. Clark (1978) states that agricultural runoff, septic tank and privy drainage, and solid waste are believed to contribute to cultural non-point source pollution from the Duck Valley Indian Reservation. Also, livestock grazing practices are considered to be the single greatest input for nonpoint source pollution downstream from the reservation. Bacteriological data would seem to back up these conclusions. Pollution input from the Indian Reservation appears to recover rapidly to a good condition as the river progresses downstream and is increased in volume from Battle and Deep Creeks. These creeks along with the South Fork of the Owyhee River are major downstream sources of pollutants, contributing large amounts of sedimentation to the Owyhee River system.

E. SOILS

The soils of the Owyhee River WSAs occur on two main physiographic positions. They are the nearly level to gently rolling plateaus with their associated sideslopes and the canyons and stream channels.

Soils of the plateaus were formed in alluvium derived dominantly from basalt and rhyolite. They are shallow or moderately deep. These soils are well developed and have loamy or clayey profiles free of rock fragments on the less sloping areas but more skeletal on the sideslope positions. The erosion potential is moderate to high in these areas. In areas that have surfaces modified by rock fragments, the erosion potential is moderate to low. Soils on slopes of greater than eight percent have high or very high erosion potential.

The canyons are composed of vertical rhyolite and basalt walls and columns that are irregularly fractured to various degrees. Soils occur on colluvial-alluvial sideslopes and breaks. They are shallow or moderately deep. They are loamy in texture with greater than 35 percent rock fragments modifying the texture. The erosion potential is moderate to high.

Soils in the stream channels formed in recent alluvium. Depths are shallow to deep. The profiles show very weak to weak development and are variable in texture and rock fragment content. The erosion potential is high or very high.

F. LANDS (Non-federal Ownership)

Lands within the WSAs are 97% to 100% federally owned and administered by the BLM Vale, Boise and Elko District Offices. Land ownership by WSA is as follows:

TABLE III-3

LAND OWNERSHIP WITHIN WSAs

WSA	Acres				
	Federal	State	Private	Split-Estate*	Total
OR-3-195 (ID-16-48B)	214,380	1,280	120	10,020	225,800
ID-16-48C	24,600	640	0		25,240
ID-16-49A	70,160	2,560	0		72,720
ID-16-49D	9,990	0	40		10,030
ID-111(16)-49E	31,540	1,240	40		32,820
ID-16-52	13,150	0	0		13,150
ID-16-53 (NV-010-103A)	50,352	1,280	160		51,792
NV-010-106	21,875	0	280		22,155
TOTAL	436,047	7,000	640	10,020	453,707

*Lands where the surface is owned by the federal government but the subsurface mineral rights are held in non-federal ownership.

The WSAs are generally surrounded by BLM land with isolated state lands or split-estate lands (Sections 16 and 36) and private lands. Two notable exceptions, however, are the Duck Valley Indian Reservation forming the eastern boundary of WSA ID-16-52 and a large block of state and private lands affecting the northeast boundary of WSA OR-3-195(ID-16-48B) between the Idaho-Oregon border and Three Forks, Oregon. There are also non-federal lands surrounded by some of the WSAs which are accessed by WSA boundary roads. These lands include:

1. 640 acres state; 80 acres private between WSAs OR-3-195 (ID-16-48B) and ID-16-49A.
2. 560 acres state; 240 acres private between WSAs OR-3-195 (ID-16-48B), ID-16-48C and ID-16-53(NV-010-103A).
3. 360 acres private between ID-16-49A, 16-49D and 111(16)-49E.

G. GEOLOGY; MINERALS AND ENERGY

1. Geology

The WSAs lie within a geological region known as the Owyhee Uplands which encompass southeast Oregon, southwest Idaho and northernmost Nevada. These uplands originated from basalt-rhyolite volcanism during the Miocene Epoch (Tertiary Period) between six and twenty-two million years ago.

The southern portion of the Owyhee Uplands through which the Owyhee River has carved its canyons is characterized by an extensive flat lying basalt plain stretching from the Bull Run Mountains of Nevada to the Santa Rosa Mountains of Oregon. The plain contains numerous basalt capped mesas, tables, buttes, canyon rims, and valleys. This basalt cap consists of many thin flows of fine-grained, vesicular alkaline-olivine basalt and interbedded sedimentary units. The sedimentary units contain basalt clasts, tuffaceous sands and gravels, ash beds, local diatomite, and alluvial and fanglomeratic sediments. Beneath the basaltic cap, the Owyhee River and its tributary streams have exposed up to 1,000 feet of rhyolite and densely welded tuffs. Lying below the rhyolite are several thousand feet of latite and basalt flows.

The Pre-Tertiary (Paleozoic) rocks which lie under the volcanics are unknown. Evidence suggests that the Owyhee Upland area was part of a Late Paleozoic deposition basin indicating the potential for metasedimentary and metamorphic rocks lying a depth beneath the WSAs.

2. Mineral and Energy Potential

Energy and mineral resources throughout the WSAs were evaluated through a geology-energy-mineral (GEM) contract with TERRADATA. TERRADATA's findings and conclusions vary somewhat from those of the Oregon Department of Geology and Mineral Industries (DOGAMI) which conducted additional field studies in Oregon under another BLM contract. The findings vary primarily

because of the different approaches taken. TERRADATA used mainly a literature research in gathering information, with a restricted amount of field verification. DOGAMI employed literature research and placed special emphasis on geochemical field work. Because there has been little attention given to mineral exploration or development in the subject lands in the past, a relatively minor amount of information was available through literature research. The studies of the southern Owyhee Uplands in Oregon, Idaho and Nevada by TERRADATA indicate a generally low favorability for the accumulations of most mineral resources (see Table III-4). However, geochemical studies in Oregon have indicated a much higher favorability for certain mineral occurrences in the same rock units.

No mining claims are on record in any of the WSAs.

Within Idaho and Nevada, occurrence of hard rock minerals is not known. There are areas of dense faulting running generally north-south through the area. These faulted areas could provide the requisite conduits necessary for mineralizing solutions, however, there is no evidence that a mineralization process has occurred.

The field studies in Oregon, however, have indicated a potential for the presence of mineral resources. The potential for mineral occurrence in WSA OR-3-195 is shown in Table III-5.

TABLE III-4

TERRADATA
CLASSIFICATION OF LANDS AROUND THE OWYHEE RIVER,
OWYHEE COUNTY, IDAHO FOR GEM^{1/} RESOURCE POTENTIAL

Commodity	Area	Classification Level	Confidence Level
Metals	Entire GRA ^{2/}	2	B
Geothermal	Entire GRA	1	B
Uranium/Thorium	Entire GRA	1	A
Coal	Entire GRA	2	B
Oil and Gas	Entire GRA	1	B
Tar Sands/Oil Shale	Entire GRA	1	C
Limestone	Entire GRA	1	A
Bentonite	Entire GRA	2	A
Diatomite	Entire GRA	4	D
Clinoptilolite	Entire GRA	2	A
Paleontology	Entire GRA	1	A
ESLs ^{3/}	None	1	C

^{1/} GEM = geology, energy and mineral.

^{2/} GRA = GEM Resource Area inventory unit.

^{3/} ESLs = educational and scientific localities.

TABLE III-5

DOGAMI
CLASSIFICATION OF LANDS WITHIN THE OWYHEE RIVER CANYON WSA OR-3-195,
MALHEUR COUNTY, OREGON FOR GEM RESOURCE POTENTIAL

Commodity	Area	Classification Level	Confidence Level	Remarks
Metals	Entire WSA	3	A	Mercury
	Part of WSA	3	C	Gold, Silver & Tin
	Entire WSA	2	C	Manganese, Lead, Tin, Gold, & Silver
Geothermal	Entire WSA	3	B	
Uranium/Thorium	Entire WSA	3	C	
Coal	Entire WSA	2	B	
Oil and Gas	Entire WSA	3	B	
Tar Sands/Oil Shale	Entire WSA	2	B	
Limestone	Entire WSA	1	B	
Bentonite	Entire WSA	3	B	
Diatomite	Entire WSA	3	B	
Zeolites	Entire WSA	3	B	

Legend:

Class 1-Lack of indications of favorability

Class 2-Low favorability

Class 3-Moderate favorability

Class 4-High favorability

Confidence Level A - Insufficient data or no direct evidence

Confidence Level B - Indirect evidence available

Confidence Level C - Direct evidence but quantitatively minimal

Confidence Level D - Abundant direct and indirect evidence

Oil, gas, and geothermal are the main energy potentials in the WSAs. Because of youthful volcanism and above normal heat flow, most of southeastern Oregon is generally considered favorable for thermal waters for direct use heat application. Smaller areas are favorable for high temperature geothermal resources. However, no high temperature resource has been identified in WSA OR-3-195. Warm springs pour into the Owyhee River from both the east and west canyon walls in the vicinity of Three Forks and for several miles upstream. The temperature of these springs is 40°C (80°F). Much of the WSA lands have been blanketed by oil and gas leases (see Table III-6). However, it is not known if favorable Paleozoic metamorphic or meta-sedimentary rock strata exist at depth. Even if the Paleozoic units exist as some evidence suggests, it is likely that any associated hydrocarbons were driven off during the Tertiary thermal episodes.

TABLE III-6

EXISTING OIL AND GAS LEASES^{1/}

<u>WSA</u>	<u>Acreage</u>
OR-3-195	4,290
ID-16-48B	4,585
ID-16-48C	10,980
ID-16-49A	46,630
ID-16-49D	6,255
ID-111(16)-49E	13,990
ID-16-52	13,150
ID-16-53	42,510
NV-010-103A	7,380
NV-010-106	16,500
 TOTAL	 166,270

^{1/} Leased after the passage of FLPMA (Oct. 21, 1976). Leased acreages are subject to change.

It should be noted that a lease or lease application, or the staking and recording of mining claims does not prove the economic occurrence of mineral commodities.

Interbedded diatomite and zeolite deposits are well known in the upper basaltic cap of the area. There are large (10 square miles) exposed deposits along the Oregon-Idaho border approximately 50 miles north of the WSA complex. Small deposits are also known to be exposed in the canyon walls of the Idaho WSAs.

3. Utility Corridors

Passing through the eastern and southern portions of the WSA complex is an existing right-of-way (I-013445) for the Northwest (El Paso) Gas Pipeline. This right-of-way is 25 feet wide and separates WSA ID-16-49D from ID-16-52 and ID-16-53 (NV-010-103A) from NV-010-106.

A one to two-mile wide utility corridor was considered along this pipeline during the development of the Bruneau and Owyhee land use plans. However, the land use plan decisions have limited this corridor to 1/4-mile in width and restricted it to underground use to protect the scenic quality of the area. The corridor would not be usable until the WSA lands are released from wilderness interim management. Other east-west utility corridors have been proposed through the WSAs, however, these corridors were not identified for potential use in the MFP decisions for the Boise and Vale Districts.

H. ECONOMICS

The local economy studied in this EIS included: Owyhee County, Idaho; Malheur County, Oregon; and Elko County, Nevada.

1. Personal Income

Total personal income in the three county areas was \$350.2 million in 1981. The major sectors contributing to this were Services (19%), Government (17%), Retail Trade (12%), Agriculture (10%), Manufacturing (9%), and Transportation and Public Utilities (9%) (BEA 1983).

Activities within the WSAs, primarily recreation and livestock use, generate income. The current livestock grazing active preference in allotments that contain the WSAs is 225,698 AUMs. Based on sales per AUM and income per dollar of sales ratios, the income generated by these AUMs if they are all used would be \$2.3 million in 1981 dollars. Recreation use within the WSAs is related primarily to hunting and whitewater boating with some backpacking and other types of uses. Current hunting use amounts to 1700 user days while boating and hiking use amounts to 2130 and 200 user days respectively. Based on expenditures per user day and income per dollar of expenditures ratios, income generated from the recreational use of the WSAs would amount to \$132,000.

2. Employment

Total employment in the three county region was 29,950 in 1981. The major employees were Agriculture (21%), Services (16%), Government (15%), Retail Trade (12%) and Manufacturing (7%) (BEA 1983).

Based on employment per AUM or user day ratios, the existing livestock grazing and recreational uses generate approximately 63 and 5 jobs respectively.



S.F. Owyhee River Canyon

WSA NV-010-106

CHAPTER IV



Hole-Up Canyon of Juniper Creek

ENVIRONMENTAL CONSEQUENCES

This chapter analyzes the environmental consequences of implementing each of the five land management alternatives. An analysis of alternatives is given under each of the affected resources. Because of the similarity of impacts for all WSAs, the analysis refers to all WSAs unless otherwise specified. Based on the analysis, no impacts were predicted to occur on the following elements: air and water quality, social conditions, flood plains, and prime or unique farmlands.

The primary environmental considerations lie not only in specific short-term environmental impacts of wilderness designation or nondesignation, but also in the potential long-term impacts which could occur depending upon the type and size of legislative (Congressional) or administrative (BLM) land use designations. Therefore, the following impact analysis addresses both the short-term and long-term impacts of each of the five alternatives.

A. WILDERNESS CHARACTER

1. Wilderness Characteristics

a. All Manageable Wilderness Alternative:

Under the All Manageable Wilderness Alternative, wilderness characteristics on 374,160 acres of public land in eight WSAs would be preserved or enhanced under a Congressional wilderness designation. An additional 1,200 acres of canyon would continue to have their wilderness character maintained by ACEC management (which includes the Owyhee River Recreation Area Management Plan). Wilderness characteristics would be diminished on 63,267 acres of plateau not designated wilderness.

The naturalness of plateau lands within the wilderness area would be improved as prescribed burning within Idaho restores the ecological condition of plant communities. The implementation of grazing systems would also improve range conditions by improving livestock distribution; damaged riparian areas within some portions of the canyon-lands would return to more natural, lush conditions. Better distribution combined with restrictions on increasing livestock use would reduce the grazed appearance of the rangeland and thereby improve the naturalness of the area. The construction of some additional stock ponds and fences needed to implement grazing systems for the restoration of plant communities would have minimal impact on naturalness.

Wilderness designation would maintain the naturalness of the plateaus by preventing the development of new

vehicle tracks (ways). It could result in more natural conditions if natural rehabilitation of some existing vehicle tracks occurs as public motorized access is prohibited, particularly in areas which receive prescribed burning. Wilderness designation would also perpetuate natural conditions by prohibiting the construction of new roads or the upgrading of cherry stem roads.

On the 63,267 acres of plateau lands not designated wilderness (WSAs OR-3-195, NV-010-106 and, ID-16-49A, 16-52 and 16-53), natural conditions can be expected to decline over time. Existing vehicle tracks would persist and grow more prominent on the landscape as resource uses increase. Increased motorized use could cause additional vehicle tracks. New roads could be constructed for the management of resources. Structures and mining operations associated with potential energy and mineral exploration and development could also significantly degrade naturalness.

Nondesignated plateau lands in Idaho could also have their naturalness impaired by land treatments such as chemical spraying and rangeland drilling. These methods result in an unnatural linear or streaked vegetation mosaic or a very obvious cultivated affect. In addition, treated areas could be seeded to non-native or "naturalized" species if native species were not available or were less desirable for increasing livestock forage production. On Idaho's and Oregon's nondesignated plateaus lands, increases in forage utilization would increase the grazed appearance of vegetation and reduce naturalness.

Wilderness designation would perpetuate a natural landscape essential for primitive recreation and solitude opportunities in the canyons and on the plateaus of all eight WSAs. Management guidelines contained in the Owyhee River Recreation Area Management Plan would maintain the naturalness, solitude and primitive recreation experiences in the canyon portions (1,200 acres) of WSA NV-010-106 not designated wilderness. On the plateaus designated as wilderness, prohibiting public motorized access would enhance both primitive recreation and solitude opportunities. A Congressional designation would likely improve the availability of funding for resource management and thereby allow for more intensive recreation management measures if needed to maintain solitude and primitive recreation opportunities as recreation use increases. Designation could also lead to alterations in low-flying military aircraft operations which currently disrupt the the solitude experiences of some recreation users. Lands not designated wilderness could eventually have their primitive recreation and solitude reduced by increased motorized use, rangeland treatments and/or potential mineral and energy developments.

It has been argued that wilderness designation could result in increased recreation use; thereby making management of wilderness characteristics more difficult. However, long-term increases in use are not expected to be greater than those already being generated as a result of the national attention being given to the Owyhee River for its whitewater recreation values.

b. No Wilderness/No Action Alternative:

With the No Wilderness/No Action Alternative, none of the areas would have their wilderness characteristics preserved under a Congressional wilderness designation. However, 88,200 acres of canyonlands within the eight WSAs would have their natural character and outstanding primitive recreation and solitude opportunities partially protected under the ACEC/HMA management. The ACEC gives priority to maintaining the river canyons' wild character, wildlife habitat, scenic values, cultural resources and primitive recreation experiences. It, however, could not prevent the loss of the canyons naturalness, primitive recreation and wildlife values from the construction of dams nor the development of potential mineral resources.

Without wilderness designation, management proposals to improve range condition, livestock forage production, or wildlife forage could reduce the naturalness of the plateaus. The ACEC/HMA management objectives which also affects about 198,800 acres of the WSAs' plateaus are aimed at minimizing human disturbances in bighorn sheep habitat. These objectives would not prohibit widespread chemical spraying or rangeland drilling to improve wildlife and livestock forage production on the plateaus of Idaho's WSAs should prescribed burning be unsuccessful in restoring vegetation. Treated areas could also be seeded to non-native species. The implementation of grazing systems throughout all WSAs would improve vegetation condition by improving livestock distribution and by reducing the trampling of riparian areas. However, the additional fencing and stock ponds needed to fully implement grazing systems would generally be greater than those permitted under a wilderness designation. Furthermore, livestock utilization of existing forage could be greater than under wilderness designation, giving the plateaus a more grazed appearance. The 149,047 acres of land outside the ACEC/HMA designation in all WSAs would receive even more intensive grazing development and livestock forage utilization. Therefore, the overall negative impact to the naturalness of the plateaus from livestock and wildlife management actions without wilderness designation could be significant.

Additional impacts to the plateaus' naturalness in all WSAs could occur from the increased visibility of existing

vehicle tracks as motorized recreation use increases. Increases in use could also lead to the establishment of additional vehicle tracks, new road construction or to the upgrading of cherry stem roads. The ACEC designation would limit the amount of potential road development on much of the WSA plateaus but would not eliminate it.

Future considerations of proposed east-west utility corridors could lead to the construction of high voltage powerlines which would substantially detract from the naturalness of the plateaus over vast areas.

Energy and mineral exploration could result in discovery and subsequent development which would seriously impair the naturalness of the areas.

Accompanying the reduction in naturalness and the increase in human activity associated with motorized recreation use, potential mineral and energy development, and grazing projects on the plateaus would be a reduction in opportunities for primitive recreation and solitude.

c. Canyonlands Wilderness Alternative:

Under the Canyonlands Wilderness Alternative, the wilderness characteristics of 87,000 acres of canyonlands within all eight WSAs would be preserved under a Congressional wilderness designation. There are 349,047 acres which would not be designated wilderness. The wilderness characteristics on 1,200 of these acres in the South Fork Owyhee River Canyon of WSA NV-010-106 would be maintained under ACEC management. The remaining 347,847 acres of plateau lands in all eight WSAs would be negatively impacted as described under the No Wilderness/No Action Alternative.

d. Wildlife Wilderness Alternative:

Under the Wildlife Wilderness Alternative, wilderness characteristics on 287,490 acres of public land in seven of the WSAs would be preserved under a Congressional wilderness designation. The wilderness characteristics of these land would be affected as described under the All Manageable Wilderness Alternative. There are 151,137 acres which would not be designated wilderness. Of this acreage, 2,800 acres in the South Fork Owyhee River Canyon of WSA NV-010-106 would have their wilderness characteristics maintained under the Owyhee River ACEC designation. The remaining 148,337 acres of plateau lands in all eight WSAs could be impacted as described under the No Wilderness/No Action Alternative.

e. All Wilderness Alternative:

The wilderness characteristics on 371,940 acres of the eight WSAs would be preserved under a Congressional wilderness designation. The wilderness characteristics of all canyonlands and plateau land would be affected as described under the All Manageable Wilderness Alternative; however, the management of portions of the plateaus would not be enhanced by the closure of cherry stem roads. Continued use of these roads by motorized vehicles could disrupt solitude and primitive recreation opportunities on the plateaus. The use of these roads could lead to unauthorized ORV use which would reduce naturalness on the surrounding wilderness lands. Also, the failure to exchange state inholdings or split-estate lands could possibly result in energy and mineral developments and additional road access which would impair wilderness values on surrounding wilderness lands.

There would be 64,107 acres of plateau lands within the wilderness area where wilderness characteristics could be compromised by the continued use of livestock management developments, external influences from adjacent roads and rangeland developments, and from potential unauthorized ORV use (see Manageability in Chapter V).

SUMMARY

Table IV-1 shows the estimated amount (percentage) of each WSA which could have wilderness characteristics reduced under each of the five alternatives. Under the All Manageable Wilderness and Wildlife Wilderness Alternatives, all lands not designated wilderness could be significantly impacted. Under the No Wilderness/No Action and Canyonlands Alternatives, lands furthest away from the canyons could be most significantly impacted; areas close to the canyons would be only moderately impacted because of ACEC/HMA management objectives. Areas of moderate impact under both the No Wilderness/No Action and Canyonlands Wilderness Alternative are delineated by the ACEC/HMA boundaries shown on Map 3.

TABLE IV-1

ESTIMATED PERCENTAGES OF EACH WSA WHICH COULD SHOW
REDUCTIONS IN WILDERNESS CHARACTERISTICS

	Alternatives 1/									
	All Manageable Wilderness		No Wilderness		Canyonland Wilderness		Wildlife Wilderness		All Wilderness	
	S	M	S	M	S	M	S	M	S	M 2/
OR-3-195 (ID-16-48B)	20	0	30	50	30	50	30	0	0	20
ID-16-48C	0	0	60	15	60	15	60	0	0	0
ID-16-49A	5	0	20	50	20	50	20	0	0	5
ID-16-49D	5	0	0	80	0	80	0	0	0	5
ID-111-49E	0	0	50	40	50	40	50	0	0	0
ID-16-52	15	0	20	55	20	55	20	0	0	15
ID-16-53 (NV-010-103A)	10	0	25	55	25	55	25	0	0	10
NV-101-106	35	0	80	0	80	0	80	0	0	35
Total	15	0	30	50	30	50	30	0	0	15

1/ Impacted areas would be equal to or less than those percentages shown.
"S" means significantly impacted; "M" means moderately impacted.

2/ Areas impacted are those determined to have manageability problems
(see Manageability, Chapter V).

2. Supplemental Values

a. Scenic Values:

Under current management objectives, scenic quality within the WSAs would not be significantly affected by any of the five alternatives. With the Canyonlands Wilderness Alternative and the No Wilderness/No Action Alternative, the canyons and much of the plateaus would be managed for scenic qualities under visual resource management (VRM) Class II which calls for all human developments to be substantially unnoticeable or to blend harmoniously into the natural landscape. Because of the vast distances over which one can see, it is doubtful that any large projects would be permitted on the plateaus under VRM Class II management. Under the wilderness alternatives, scenic quality within the wilderness areas would be managed by an even more stringent VRM Class I.

Under the No Wilderness/No Action Alternative, the VRM classification for the area could be changed by future planning efforts to allow the establishment of large energy or mineral projects (such as high voltage powerlines) which

could substantially degrade the scenic quality over vast expanses of the plateaus. In addition, under the No Wilderness/No Action Alternative, the possibility of dam construction remains a continual threat to the scenic grandeur of the canyons.

Most structural rangeland developments under each alternative would not significantly affect scenic quality of the plateaus. However, under the No Wilderness/No Action Alternative and Canyonlands Wilderness Alternative, widespread brush removal through aerial spraying and seeding with rangeland drills in Idaho's WSAs would somewhat degrade scenic quality because of the resulting unnatural, linear, or cultivated appearances of treated areas and because of a reduction in plant diversity and the presence of numerous dead sagebrush plants. Furthermore, the higher forage utilization levels which could occur without wilderness designation would slightly diminish scenic quality of native grassland plant communities in the Oregon and Idaho WSAs.

b. Vegetation (Ecological and Scientific) Values:

The rhyolite canyonlands/sagebrush-bunchgrass ecosystem is currently not represented in the National Wilderness Preservation System. Any of the four wilderness alternatives would provide representation of this ecosystem. The least representative of this ecosystem would be the Canyonlands Wilderness Alternative because it excludes the plant communities of the plateau lands.

The rangeland management practices identified in each of the alternatives would be beneficial to the maintenance or restoration of native plant communities throughout much of the WSAs. However, under the No Wilderness/No Action Alternative and Canyonlands Wilderness Alternative, the potential for allowing the seeding of Idaho's plateaus to non-native or "naturalized" species (such as crested wheatgrass) could disrupt the natural plant community composition on some portions of the the plateaus. The ecological and scientific value of the plateaus as a representation of a rhyolite canyonlands/sagebrush-bunchgrass ecosystem in natural condition would be lost on seeded areas. The extent of seeded areas cannot be quantified at this time.

Because the eight sensitive, threatened and endangered plants identified in the WSAs have habitat locations which are not generally affected by livestock grazing, there would be no impact to these plant species from livestock use under any of the alternatives. However, dam construction under the No Wilderness/No Action Alternative, could inundate the habitats for these plant species.

The Owyhee River Recreation Area Management Plan establishes recreation visitor carrying capacities and visitor information programs aimed at minimizing human disturbance (trampling) of plant communities including sensitive, threatened and endangered species. Therefore, vegetation is not expected to be significantly impacted by recreation use under any of the alternatives.

c. Wildlife Values:

Current management practices (No Wilderness/No Action Alternative) as well as the proposed wilderness management objectives contained in the other alternatives would protect wildlife habitats and maintain wildlife populations. Each alternative would have the same recreation visitor carrying capacity and visitor information programs aimed at minimizing human disturbance of wildlife habitats and populations within the canyons of the WSAs. The removal or the improved management of livestock in the canyons under each alternative would eliminate or greatly reduce impacts to wildlife from livestock trampling and competition for forage. Improved range condition on the plateaus under all alternatives would increase wildlife forage availability and improve habitat conditions overall. Since state wildlife management agencies can continue bighorn sheep management practices under each alternative, of California bighorn sheep would continue to grow and serve as a source for transplants to other areas which could benefit national and world populations. The use of helicopters for trapping and transplanting of California bighorn sheep could continue to be allowed in order to promote the maintenance or expansion of the population. Increased knowledge of population dynamics could be accomplished by continued research of the California bighorn sheep and their habitat, resulting in more stable population levels. Stable populations of other wildlife species such as game birds could also be maintained. The maintenance of existing road networks between and adjacent to the WSAs under each alternative would allow vehicle access for state game agencies to carry out transplanting programs.

The major differences in wildlife impacts between alternatives lies in the capability to provide long-term protection against the potential for energy and mineral development. Wilderness designation would prevent the development of any potential mineral and energy resources. Such developments could result in some loss or deterioration of wildlife habitats. Increased human activity associated with these developments could also disturb wildlife populations. Under the No Wilderness/No Action Alternative, the ACEC/HMA designation could not stop mineral and energy development on the plateaus and the subsequent disruption of habitats and populations for bighorn sheep, mule deer, sage grouse and antelope.

Each of the four wilderness alternatives would prevent dam construction which could inundate many miles of canyon habitat critical to bighorn sheep, wintering mule deer, chukar, river otter, beaver, red band trout, waterfowl and other species. Under the No Wilderness/No Action Alternative, canyonland habitats would continue to be threatened by possible dam construction.

d. Cultural Values:

Cultural resources would ultimately be managed within the framework of a cultural resource management plan with or without wilderness designation. The plan would employ certain protective measures to counteract the effects of recreation and livestock grazing. Such protective measures might include: regular monitoring of significant sites during use periods, placement of signs on principal access routes to inform visitors of laws protecting cultural resources, stabilization of historic buildings, scientific excavation of significant endangered sites, public information and education efforts and additional inventory.

Recreation use of the areas, particularly within the river canyons, is expected to increase regardless of designation. As use in the canyons increases, the potential for vandalism and unauthorized collection of cultural resources can also be expected to increase. Under all alternatives, the canyons would continue to receive protective management as described above to reduce negative impacts to cultural resources.

The principal difference in impacts among alternatives lies in each alternative's capability to utilize protective measures and to limit the amount of recreation and livestock grazing of the plateaus. Under the All Manageable, Wildlife and All Wilderness Alternatives, limitations on future increases in livestock grazing on the plateaus would prevent increased grazing-related impacts to cultural resources including vertical and horizontal displacement of artifacts, artifact breakage and destruction of environmental information contained in sites. These impacts make the reconstruction of human activities difficult or impossible. In addition, closure of all but a few roads would remove vehicle access to large portions of the plateau and canyon rim areas and should reduce vandalism and unauthorized collection of cultural resources.

Under the Canyonlands Wilderness and No Wilderness/No Action Alternatives, damages related to intensive livestock grazing can be expected to either continue at current levels or slightly increase depending on future stocking levels. Cultural resources can be expected to deteriorate at an increased rate due to increasing motorized recreational use of the plateaus and resultant increases in vandalism and unauthorized collection of artifacts.

Wilderness designation in any configuration could provide the additional funding necessary to implement protective management measures as described above. Wilderness designation which includes plateaus would provide the greatest benefit because it would include the numerous archaeological sites along the canyon rims.

B. RECREATION

Except for the All Wilderness Alternative, total recreation use would increase about the same amount by the year 2002 with or without wilderness designation. Recreation use changes should occur equally throughout the WSAs on a per acre basis. Boating and backpacking use could increase to a greater degree than hunting as recreationists seeking adventure and solitude become increasingly aware of the opportunities available. Recreation use would be so widely dispersed that it would have little impact upon the natural values and solitude opportunities essential for a primitive recreation experience. Public road access to boating put-in points would remain open under all alternatives.

The following narrative addresses consequences specific to the various alternatives:

1. All Manageable Wilderness Alternative

Wilderness designation would enhance the physical and social settings necessary for outstanding primitive recreation experiences on 374,160 acres of the eight WSAs. Primitive recreation experiences would also be maintained within 1,200 acres of river canyon in WSA NV-010-106 under ACEC management.

There would be 16.5 miles of roads and 77.4 miles of ways closed to semi-primitive motorized recreation use. Closure of vehicle routes would restrict hunting use, but would improve opportunities to experience solitude. Existing motorized recreation access into the canyons for whitewater boating would be unaffected. Motorized access to the South Fork Owyhee River could be improved by the reconstruction of a road into Twelve Mile in WSA NV-010-106. WSA plateau lands (63,267 acres) outside the wilderness area would remain open to unrestricted motorized recreation use.

Easements, cooperative management agreements, and land exchanges could occur which could enhance primitive recreation opportunities.

Expressed in 24-hour user days, recreation use throughout the WSAs may increase as follows:

	<u>1982</u>	<u>2002</u>
Hunting	1,700	2,400
Boating	2,130	11,000
Backpacking/Other	<u>200</u>	<u>2,000</u>
TOTAL	4,030 User Days	15,400 User Days

Big game hunting use displaced due to the closure of roads and ways to public motorized vehicle use would be dispersed within areas surrounding the wilderness. Chukar hunting within the canyons would be discouraged by access restrictions.

2. No Wilderness/No Action Alternative

No wilderness area would be designated to aid in the management of outstanding primitive recreation opportunities found in the WSAs. The ACEC/HMA designation would maintain the existing primitive recreation opportunities, as well as semi-primitive motorized recreation opportunities associated with roads and ways, on 287,000 acres within the eight WSAs.

Motorized recreation use would be allowed on all existing roads and ways within the ACEC/HMA; WSA lands (149,047 acres) outside these areas would be open to unrestricted motorized recreation use. This would facilitate use of the area by hunters, but the occasional sights and sounds of motor vehicles would detract from the experience of hikers seeking solitude on the plateaus. Access to the South Fork Owyhee River could be improved by the reconstruction of a road into Twelve Mile in WSA NV-010-106.

Activities, such as mineral and energy exploration and development could degrade recreation opportunities throughout the WSAs, both within and outside the ACEC/HMA. Extensive range improvements could degrade primitive and semi-primitive recreation opportunities outside the ACEC in Idaho's WSAs. Dams could be constructed on the Owyhee River which would seriously impact whitewater boating, backpacking, hunting and other existing recreation opportunities.

Expressed in 24-hour user days, recreation use may increase as follows:

	<u>1982</u>	<u>2002</u>
Hunting	1,700	2,900
Boating	2,130	11,000
Backpacking/Other	<u>200</u>	<u>1,500</u>
TOTAL	4,030 User Days	15,400 User Days

3. Canyonlands Wilderness Alternative

Consequences would be similar to the No Wilderness/No Action Alternative. Only 2.5 miles of roads and 3.5 miles of ways would be closed to public motorized recreation use. Recreation use would be the same as the No Wilderness/No Action Alternative.

4. Wildlife Wilderness Alternative

Consequences would be similar to the All Manageable Wilderness Alternative except that wilderness designation would enhance primitive recreation opportunities on 287,490 acres (86,670 fewer acres). Primitive recreation experiences would also be maintained within 2,800 acres of river canyon in WSA NV-010-106 under ACEC management.

There are 15.8 miles of roads and 50.8 miles of ways which would be closed to motorized recreation use. Existing motorized access into the canyons for whitewater boating would be unaffected. Access to the South Fork Owyhee River could be improved by the reconstruction of a road into Twelve Mile in WSA NV-010-106. WSA plateau lands (148,337 acres) outside the wilderness area would remain open to unrestricted motorized recreation use.

Closure of vehicle routes would restrict hunting access and cause hunting use to disperse to areas surrounding the wilderness.

Recreation use would be the same as the All Manageable Wilderness Alternative.

5. All Wilderness Alternative

Wilderness designation would maintain the existing outstanding primitive recreation values found in the WSAs.

Semi-primitive motorized recreation use would still occur on 38.25 miles of cherry stem roads extending into the wilderness, including access to the river boating put-in points. Semi-primitive motorized recreation opportunities would be lost in the remainder of the plateau lands of the WSAs because of the closure of 104.3 miles of ways to recreation vehicle use. Vehicle traffic on cherry stem roads would continue to detract from the solitude found on some portions of the plateaus. Some additional access routes and uncomputable uses could occur on state and private lands within the wilderness which could reduce primitive and semi-primitive recreation opportunities.

Recreation use would be the same as the All Manageable Wilderness Alternative with the exception that a little more hunting use (200 user days) would occur under the All Wilderness Alternative since cherry stem roads would not be closed to public use.

SUMMARY

The following table (Table IV-2) summarizes the closure of motor vehicle routes and the resultant change in recreation use for the five alternatives.

TABLE IV-2
RECREATION - SUMMARY TABLE

Closure of Motor Vehicle Routes to Public Use by WSA (miles)	All Manageable Wilderness		No Wilderness/No Action		Canyonlands Wilderness		Wildlife Wilderness		All Wilderness	
	Road	Way	Road	Way	Road	Way	Road	Way	Road	Way
OR-3-195 (ID-16-48B)	1.0 4.75	46.6 9.5	0 0	0 0	0 2.5	1.0 0.75	1.0 4.75	25.0 9.5	0 0	73.0 9.5
ID-16-48C	0	0	0	0	0	0	0	0	0	0
ID-16-49A	6.25	11.5	0	0	0	1.75	6.25	8.0	0	11.5
ID-16-49D	1.25	1.0	0	0	0	0	1.25	1.0	0	1.0
ID-16-49E	1.25	1.0	0	0	0	0	1.25	1.0	0	1.0
ID-16-52	0	0	0	0	0	0	0	0	0	0
ID-16-53 (NV-010-103A)	2.0 0	6.8 0	0 0	0 0	0 0	0 0	1.3 0	6.3 0	0 0	7.3 0
NV-010-106	0	1.0	0	0	0	0	0	0	0	1.0
Total Miles	16.5	77.4	0	0	2.5	3.5	15.8	50.8	0	104.3
Recreation Use - Year 2002 (User Days)	Current Use	All Manageable Wilderness	No Wilderness/No Action		Canyonlands Wilderness		Wildlife Wilderness		All Wilderness	
Hunting	1,700	2,400	2,900		2,900		2,400		2,600	
Whitewater Boating	2,130	11,000	11,000 ^{1/}		11,000		11,000		11,000	
Backpacking, Other	200	2,000	1,500		1,500		2,000		2,000	
	4,030	15,400	15,400		15,400		15,400		15,600	

^{1/} Assuming no dams are constructed on the Owyhee River.

4. LIVESTOCK GRAZING

1. All Manageable Wilderness Alternative

Implementation of the All Manageable Wilderness Alternative would restrict the number, kind and location of proposed water developments, fencing and sagebrush control (land treatment) projects. Such restrictions would reduce the capability of grazing systems to optimize increases in livestock use within affected allotments through better livestock distribution and forage utilization.

In accordance with the BLM Wilderness Management Policy, livestock use within the wilderness would remain at or near the level occurring at the time of designation. In order to maintain this level of use within the wilderness area, the level of use in nonwilderness areas may also have to be maintained at or near the level occurring at the time of designation. This is because additional livestock allowed into nonwilderness areas immediately adjacent to the wilderness boundary may drift into the wilderness area. Fencing of the wilderness boundary is not considered a viable alternative because it would disrupt grazing system efficiency by creating water and livestock distribution problems, awkward pasture sizes and shapes, and additional maintenance problems.

Restricting the level of use on some pastures within an allotment may affect the efficiency of grazing systems. Livestock use periods or the number of livestock present may have to be adjusted in order to maintain current use levels.

The estimated level of livestock use to be allowed in affected allotments (both within and outside of wilderness areas) under the All Manageable Wilderness Alternative is shown on Table IV-3. The level of use was determined by evaluating current use levels and potential increases in livestock use. Potential increases are available on some allotments because they currently have excess forage which is not being grazed. Potential increases would also occur over a 20 year period because livestock carrying capacity would increase with improved range conditions as grazing systems are implemented and land treatment projects (nonwilderness areas) are completed.

In determining the allowable use levels, the following factors were evaluated: the percentage of an allotment or pasture within the wilderness area, topography, movement of livestock, seasonal use restrictions, location of water sources and the location of adjacent seeded areas.

Generally, if the wilderness area would cover only a small percentage of an allotment or pasture, or if livestock drift from nonwilderness areas was not anticipated to occur, livestock use levels outside wilderness boundaries were not predicted to be affected by wilderness designation. On the other hand, if

TABLE IV-3
CURRENT AND 20-YEAR LIVESTOCK USE WITHIN AFFECTED ALLOTMENTS (AUMs)

Allotment Name and Number	Current Active Preference	Livestock Use (1982 Licensed Active Use)	Alternatives				
			All Manageable Wilderness	No Wilderness/ No Action	Canyonlands Wilderness	Wildlife Wilderness	All Wilderness
OREGON							
Arock 1001	9,519	13,949	15,875	17,203	17,203	16,012	15,875
Willow Creek 1004	10,618	10,709	14,702	15,572	15,572	14,702	14,702
Raburn 1005	1,040	1,040	1,515	1,565	1,565	1,515	1,104
Whitehorse 1008	4,478	4,425	4,478	4,478	4,478	4,478	4,478
Jackies Butte 1101	14,334	14,742	30,845	33,253	33,253	30,845	30,845
Ambrose Maher 1102	580	580	580	580	580	580	580
Campbell 1306	14,518	13,032	43,216	43,592	43,592	43,216	32,493
Louse Creek Comm. 1307	11,579	11,512	14,924	19,418	19,358	14,924	14,924
Anderson 1401	2,964	4,227	1,969	6,466	6,466	1,969	1,969
Star Valley Comm. 1402	6,852	5,285	6,398	9,659	9,659	6,398	6,191
IDAHO							
Garat Individual 0524	80	80	175	175	175	175	175
Bull Basin 0540	3,726	3,203	4,469	4,469	4,469	4,469	4,469
Sheep Hills 0551	1,200	1,070	2,531	2,531	2,531	2,531	2,531
Garat 0584	33,305	15,679	20,662	23,677	23,677	20,862	20,652
Crutcher Crossing 0593	138	384	384	384	384	384	384
"45" 0629	3,852	2,421	3,854	8,294	8,294	3,854	3,849
Castlehead-Lambert 0634	3,123	3,061	4,503	5,283	5,283	4,528	4,503
Big Springs 0803	17,851	16,103	17,864	19,764	19,764	17,909	17,864
Riddle 0805	27,199	25,343	24,768	25,668	25,668	24,763	24,753
Northwest 0808	13,400	12,103	19,906	19,906	19,906	19,906	19,906
NEVADA							
Petan-Owyhee 1019	2,094	2,091	2,094	2,094	2,094	2,094	2,094
Owyhee 1024	30,225	12,448	31,917	31,917	31,917	31,917	31,917
YP 1037	13,023	11,840	13,023	13,023	13,023	13,023	13,023
TOTAL	225,698	185,327	280,652	308,971	308,911	281,054	269,281

the wilderness area would cover a significant percentage of a pasture or allotment or if livestock drift between areas was anticipated, increased use within the entire allotment, pasture, or seasonal use area would not be allowed. Increases resulting from prescribed burning would also not be allowed. This approach to determining allowable use levels identifies the minimum level of livestock use that would occur. Increases above the levels predicted may occur if the increased use levels would not adversely impact wilderness values. Estimated livestock use within the WSA boundaries in 20 years is shown on Table IV-4.

Since most of the wilderness acreage affects only a portion of most allotments or a portion of the pastures within an allotment, grazing management projects could still be implemented outside of wilderness area boundaries to increase livestock use within the allotments. Under the All Manageable Wilderness Alternative, total livestock use within affected allotments could increase by 54,954 AUMs (225,698 AUMs to 280,652 AUMs) in 20 years (Table IV-3). Total potential annual increases in livestock use foregone by WSA by year 20 could be 28,319 AUMs (Table IV-5). Livestock use data for individual allotments is shown in Appendix C.

The occasional use of existing roads and ways by livestock operators may be restricted. Some allotment and livestock supervision may be required to be done without vehicles. This would slightly reduce the efficiency of livestock operations.

2. No Wilderness/No Action Alternative

No wilderness designation would be beneficial to livestock grazing. Proposed project development for rangeland management would allow full development of grazing systems. Livestock use in affected allotments could increase by 83,273 AUMs (225,698 AUMs to 308,971 AUMs) in 20 years (Table IV-3).

3. Canyonlands Wilderness Alternative

The impact of the Canyonlands Wilderness Alternative would be very similar to the No Wilderness/No Action Alternative. All projects planned on the plateaus would be allowed. Total livestock use for the allotments would increase by 83,213 AUMs (225,698 AUMs to 308,911 AUMs) over a 20 year period (Table IV-3).

4. Wildlife Wilderness Alternative and All Wilderness Alternative

The impacts of these alternatives are similar in nature to the All Manageable Wilderness Alternative. The magnitude of impact changes depending upon the acreage recommended for wilderness. Under the Wildlife Alternative, a 55,356 AUM increase could occur. In the All Wilderness Alternative, a 43,583 AUM increase could occur. Livestock use levels are displayed in Tables IV-3 through IV-5.

TABLE IV-4

CURRENT AND 20-YEAR LIVESTOCK USE WITHIN WSA BOUNDARIES

WSA	Current Use	All Manageable	No Wilderness	Canyonlands	Wildlife	All Wilderness
<u>OREGON 1/</u>						
3-195 (16-48B)	11,904	20,100	28,628	28,568	23,400	15,361
<u>IDAHO</u>						
3-195 (16-48B)	1,280	1,280	1,780	1,780	1,280	1,280
16-48C	1,255	1,255	2,125	2,125	1,255	1,255
16-49A	5,320	5,320	6,690	6,690	5,320	5,320
16-49D	830	840	1,005	1,005	840	830
111-49E	2,720	2,720	3,260	3,260	2,720	2,720
16-52	1,635	1,635	1,900	1,900	1,710	1,635
16-53 (103A)	1,220	1,220	2,665	2,665	1,220	1,220
<u>NEVADA</u>						
16-53 (103A)	959	959	959	959	959	959
106	<u>2,514</u>	<u>2,514</u>	<u>2,514</u>	<u>2,514</u>	<u>2,514</u>	<u>2,514</u>
TOTAL	29,637	37,843	51,526	51,466	41,218	33,094

1/ There is currently a large number of AUMs that are available for livestock use in Oregon allotments. A portion of these AUMs could be used without adversely affecting wilderness values.

TABLE IV-5
MAXIMUM LIVESTOCK USE FOREZONE WITH WILDERNESS DESIGNATION BY WSA 1/

WSA	ALTERNATIVES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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	Vege- tative (AUMs)	Water De- velop- ment (AUMs)	Pre- senti- ly Avail- able (AUMs)	Live- stock Manage- ment (AUMs)		Vege- tative (AUMs)	Water De- velop- ment (AUMs)	Pre- senti- ly Avail- able (AUMs)	Live- stock Manage- ment (AUMs)	Total AUMs	Vege- tative (AUMs)	Water De- velop- ment (AUMs)	Pre- senti- ly Avail- able (AUMs)	Live- stock Manage- ment (AUMs)	Total AUMs	Vege- tative (AUMs)	Water De- velop- ment (AUMs)	Pre- senti- ly Avail- able (AUMs)	Live- stock Manage- ment (AUMs)	Total AUMs																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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1/ The use forezone is compared to the maximum potential that could be provided, assuming adequate funding to complete all range improvement projects. See Table IV-4 for the increases in livestock forage projected under all alternatives.

2/ Presently available AUMs are AUMs that are currently being produced but are not being grazed by livestock.

D. WATER

Although there are no current active proposals for dams on the Owyhee River, changing conditions could make previous proposals or new projects feasible.

Each of the four wilderness alternatives would prohibit the construction of dams to store water for downstream irrigation use or for use within the Duck Valley Indian Reservation.

Under the No Wilderness/No Action Alternative, reservoir development could occur on the Owyhee River if land use plans were modified to permit dam construction.

E. SOILS

The major soil types in the WSAs have moderate to high erosion potentials. Minimizing disturbance of the soil surface (both mechanical and physical) and maintaining an adequate vegetative cover are imperative to reducing surface erosion. Actions which decrease the amount of vegetative cover reduce infiltration rates which result in increased sheet flow. This accelerates runoff and erosion. Reducing the vegetative cover also results in a decrease in the organic component of the soil, which would decrease fertility and productivity. Mechanical and/or physical disturbance of the soil surface breaks down and weakens the soils natural structure. The detachment of individual soil particles leaves them susceptible to erosion by wind and/or water. Soil compaction by mechanical and/or physical means will accelerate sheet flow which increases runoff and erosion.

1. All Manageable Wilderness Alternative

Under the All Manageable Wilderness Alternative, soil erosion and disturbance in the wilderness area would be reduced from current levels. This would be accomplished by 1) maintaining or reducing livestock levels on the plateaus and in the canyons, 2) the development of new range improvements to restore good ecological condition to plant communities, 3) limiting new developments in areas already in good condition, 4) by prohibiting further mineral entry on the public lands within the wilderness area, and 5) by closing roads and ways to general public use. These actions help improve the density and quality of the vegetative cover and decrease surface disturbance.

Of critical importance is the protection of the highly erodible stream banks and flood plains of the canyons. By minimizing livestock use in the canyons, particularly the riparian zones, the erosion hazard of these areas would be greatly reduced.

Land treatments used to promote better range condition within the wilderness area would over time help reduce the hazards of erosion. Initially, land treatments such as prescribed burning would remove the vegetative cover and expose the

soil to increased erosion hazard. However, under proper management, the area would revegetate to a better condition class reducing the erosion potential particularly when livestock numbers are not substantially increased. Land treatments utilizing rangeland drills for seeding nonwilderness areas would have greater short-term erosion hazards but would also contribute to reduced long-term erosion potential.

2. No Wilderness/No Action Alternative

Under the No Wilderness/No Action Alternative, the 149,047 acres of WSA land which would not be identified for any special BLM administrative designation would be susceptible to an increased erosion hazard. Areas open to more intense grazing use and project development could be susceptible to slight increases in sheet, rill, and gully erosion due to soil surface disturbance. Mineral exploration and development activities that effect vegetative cover or disturb the natural state of the soil would result in an increased hazard of erosion.

The management objectives under the ACEC/HMA (287,000 acres) would help promote a reduced erosion hazard in the same manner as described under the All Manageable Wilderness Alternative. Managing the canyons for wildlife and reducing livestock use would promote increased vegetative cover, especially in riparian areas, thereby protecting the highly erosive stream banks and flood plains. Improving range condition of the plateaus by either prescribed burns or other land treatment methods where applicable would promote good quality vegetative cover and reduce erosion hazards. However, at the same time, increasing the amount of livestock use (both on treated and untreated acres) would increase soil surface disturbance and slightly reduce the benefits of improving vegetative cover. Overall, the erosion hazard on the ACEC lands would be slightly reduced.

3. Canyonlands Wilderness Alternative

Under this alternative, the 88,200 acres designated as wilderness or ACEC within the canyonlands would be less susceptible to increased soil hazards. Management objectives would help promote and protect vegetative cover, especially critical riparian zones. This would stabilize the highly erosive stream banks and flood plains. Physical and/or mechanical disturbance of the soil would be minimized.

The plateau acreage identified unsuitable for wilderness would be impacted as described under the No Wilderness/No Action Alternative.

4. Wildlife Wilderness Alternative and All Wilderness Alternative

Soils would be impacted under these two alternatives in the same manner as described under the All Manageable Wilderness Alternative.

F. LANDS (Non-federal Ownership)

Each alternative calls for the continued use of existing roads into or between WSAs for access to private and state lands. The BLM Wilderness Management Policy guarantees reasonable access to all non-federal inholdings and does not restrict the type of development which could occur on these inholdings. "Reasonable access" means that which is minimally necessary to allow inholdings to be used for their intended purpose. Land acquisition for wilderness areas must occur by state (or private) - federal land exchanges or by sale with the permission of private landowners. Easements would maintain existing land uses on private land. Therefore, non-federal ownership, access and use would not be significantly impacted by any of the alternatives unless there is a change in the desired use of the lands.

Because each alternative addresses the need to minimize impacts from recreation use through visitor use controls and visitor education programs, state and private inholdings and adjacent state or private lands would benefit through protective management under all alternatives.

G. MINERALS AND ENERGY

All lands designated as wilderness would be withdrawn from all forms of appropriation under the mining laws except for valid existing rights established before designation. Therefore, wilderness designation of the subject lands would restrict development of minerals within the WSAs. Research and exploration in the subject lands has been relatively recent and cursory to date. Further exploration may result in the discovery of development potential. This development potential would be eliminated (except for valid existing rights) if lands were designated wilderness.

Each of the four wilderness alternatives, as well as possible wild river designation under the No Wilderness/No Action Alternative, would preclude the construction of hydroelectric dams on the upper Owyhee River.

Current management objectives under each of the five alternatives would also prevent the establishment of utility corridors in the area. Under the All Manageable, Wildlife and Canyonlands Wilderness Alternative, utility corridors would be limited to a 1/4 mile wide corridor along the Northwest Gas Pipeline. This utility corridor could not exist under the All Wilderness Alternative. Under the No Wilderness/No Action Alternative, additional utility corridors could be established only if less restrictive VRM classifications (Class III and IV) are provided by future planning efforts.

H. ECONOMICS

Impacts on local personal income and employment are listed below for each alternative. Impacts on mineral resources are not known and are not presented. The impacts shown reflect data from the livestock

grazing and recreation sections. The personal income and employment projects are based on an input/output model of Malheur County, Oregon; Elko County, Nevada; and Owyhee County, Idaho. This model was constructed using the U.S. Forest Service IMPLAN system.

1. All Manageable Wilderness Alternative

The AUMs available in the affected allotments by year 20 could result in an annual income of \$2.8 million. This would be a 24% increase over the present situation. Recreation use projected by year 20 would result in annual income of \$491,000 which is a 273% increase over the present situation.

Employment related to the available AUMs would be 79 jobs by year 20. There would be 21 jobs by year 20 associated with the projected recreation use. These would be increases of 25 and 307% respectively.

2. No Wilderness/No Action Alternative

The AUMs available with this alternative by year 20 could result in an annual income of \$3.1 million. This would be a 37% increase over the present situation. Recreation use projected by year 20 would result in an annual increase of \$504,000 which is a 283% increase over the present situation.

Employment related to the available AUMs would be 87 jobs by year 20. There would be 21 jobs by year 20 associated with the projected recreation use. These would be increases of 38 and 307% respectively.

3. Canyonlands Wilderness Alternative

This alternative is the same as the No Wilderness/No Action Alternative in terms of economic impact.

4. Wildlife Wilderness Alternative

This alternative is the same as the All Manageable Wilderness Alternative in terms of economic impact.

5. All Wilderness Alternative

The AUMs available with this alternative by year 20 could result in an annual income of \$2.7 million. This would be a 19% increase over the present situation. Recreation use projected by year 20 would result in annual income of \$497,000 which is a 277% increase over the present situation.

Employment related to the available AUMs would be 76 jobs by year 20. There would be 21 jobs by year 20 associated with the projected recreation use. These would be increases of 21 and 307% respectively.

SUMMARY

None of these alternatives would have a significant impact on the local economy. During the five year period of 1977 to 1981 total personal income rose 88% and employment rose 10%. If this trend continues over the next 20 years, then the income increases (33 to 59%) generated by these alternatives would have little impact on the local economy. No one alternative is significantly more beneficial to the local economy than any other alternative.

The annual administrative costs of managing wilderness areas under the All Manageable, Wildlife Wilderness and All Wilderness Alternatives would be approximately \$15,000 above the administrative costs for the No Wilderness/No Action and Canyonlands Wilderness Alternatives.

I. RELATIONSHIP BETWEEN SHORT-TERM USE OF THE ENVIRONMENT AND MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Implementation of the proposed action or the alternatives would not involve losses to the long-term productivity of the environment.

J. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

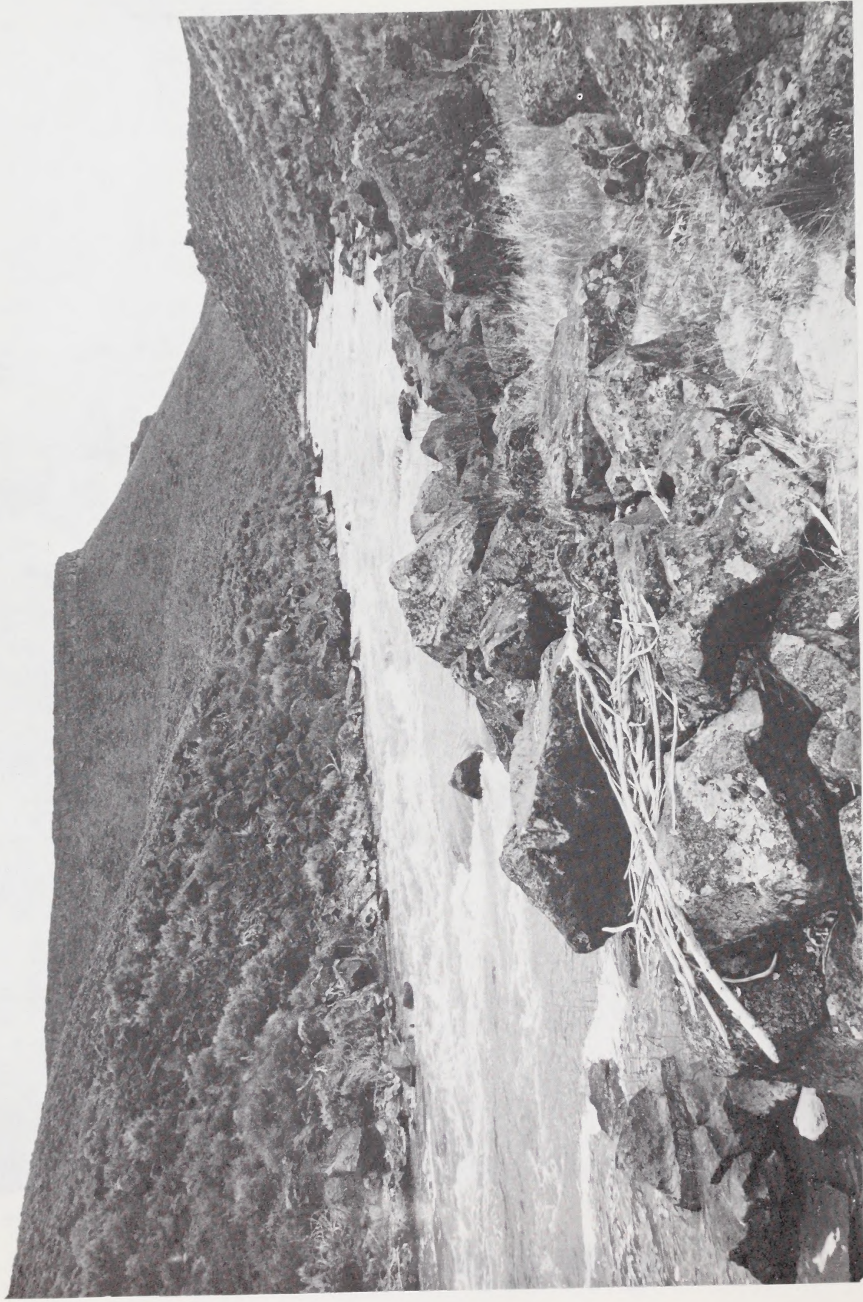
Nondesignation of areas as wilderness may result in the irretrievable loss of wilderness values. If mineral and energy development or dam construction were to occur, the natural values of affected areas would be lost. The natural values would also be lost on areas that were sprayed or mechanically treated to control sagebrush or were reseeded with non-native plant species.



Side Canyon of Deep Creek

WSA ID-16-49A

CHAPTER V



S.F. Owyhee River Canyon

WSA NV-010-103A

OTHER DATA FOR ANALYSIS AND CONSIDERATION

This chapter evaluates the eight WSAs in relation to the planning criteria and quality standards established by the BLM Wilderness Study Policy. This evaluation determined the suitability recommendation for the WSAs in the All Manageable Wilderness Alternative.

A. CRITERIA #1: EVALUATION OF WILDERNESS VALUES

1. Mandatory Wilderness Characteristics

- a. Size - The eight WSAs range in size from 9,990 acres to 214,380 acres. The acreage of each WSA is as follows:

OR-3-195 (ID-16-48B)	214,380 acres
ID-16-48C	24,600 acres
ID-16-49A	70,160 acres
ID-16-49D	9,990 acres
ID-111(16)-49E	31,540 acres
ID-16-52	13,150 acres
ID-16-53 (NV-010-103A)	50,352 acres
NV-010-106	21,875 acres

Nationally, the average size of BLM WSAs is about 26,000 acres.

- b. Naturalness - The intensive inventory and study have documented that less than eight percent of any of the eight WSAs is minimally impacted by imprints of man within the areas. The WSAs appear to be affected primarily by the forces of nature with the imprints of man's work substantially unnoticeable. The percentage of total acreage impacted within each WSA is approximately as follows:

WSA OR-3-195 (ID-16-48B)	<8%
WSA ID-16-48C	<1%
WSA ID-16-49A	<6%
WSA ID-16-49D	<3%
WSA ID-111(16)-49E	<1%
WSA ID-16-52	<2%
WSA ID-16-53 (NV-010-103A)	<2%
WSA NV-010-106	<1%

Much of the area within each WSA impacted by external influences or concentrations of imprints has been removed from the wilderness alternatives (except the All Wilderness Alternative) presented in this EIS in order to provide more protectable or definable boundaries, and to improve the areas' management for solitude and primitive recreation opportunities (see Criterion #2 - Manageability).

Some additional reservoirs may be developed under the guidance of the BLM Wilderness Interim Management Policy if they remain substantially unnoticeable in the WSAs and would not impair the suitability of the WSAs for wilderness designation.

- c. Opportunities for Solitude - The intensive inventory documented that all eight WSAs possess outstanding opportunities for solitude. The outstanding opportunities for solitude in each WSA are attributed to the isolated, intimate seclusion of miles of canyonlands and the viewing of hundreds to thousands of square miles of vast, open, seemingly undisturbed desert plateau lands and distant mountain ranges. The depth and meandering character of the canyonlands create a tremendous sense of seclusion or separation from the rest of the world. The vast open spaces of the plateaus combine with the seclusion of the canyons to instill a sense of isolation or separation from civilization.
- d. Opportunities for Primitive Recreation - The canyonlands and plateaus of the WSAs generally have scenic natural features and a diversity of rugged landforms which provide a strong recreational attraction to people interested in hunting, backpacking and river running, and associated secondary activities of sightseeing, outdoor photography, wildlife viewing, botanical studies, and fishing. River running opportunities are considered of national significance.

The outstanding opportunities for primitive recreation in seven of the WSAs are attributed to their rugged beauty; a diversity of landforms; miles of canyons offering challenging river running, hiking experiences and other activities; unrestricted mobility between canyons and plateaus; in some WSAs, a good potential for recreation use of the plateaus.

Only WSA ID-16-48C is lacking in outstanding primitive recreation opportunities because it has less scenic quality, a lack of diversity in landform, restricted mobility between the canyons and plateaus, and few opportunities for recreation activities. However, this WSA has a high degree of naturalness and has outstanding opportunities for solitude.

2. Special Features or Supplemental Values

- a. Scenic Values - The WSAs, except ID-16-48C, are of exceptional scenic quality because of their rugged, meandering, sheer-walled canyons and expansive plateaus containing a diversity of landforms, textures, and colors. WSA ID-16-48C is considered of only fair to good scenic quality because of its less diverse landforms, textures, and colors (for detail see Chapter III, Scenic Quality).

- b. Ecological Values - The WSAs are part of a rhyolite canyonlands/sagebrush-bunchgrass ecosystem (see Diversity in NWPS). The vegetation in the canyons and on some portions of the plateaus is in good to excellent (pristine) ecological condition. The canyons also contain eight plant species classified as endangered, threatened, or sensitive by the scientific community. These species are:
- 1) Owyhee River Stickseed (Hackelia ophiobia) - On Oregon's Endangered List and proposed for the Federal Endangered List.
 - 2) Packard's Sagebrush (Artemisia packardiae) - On Idaho's Watch List.
 - 3) White Eatonella (Eatonella nivia) - On Idaho's Watch List.
 - 4) Anderson's Buttercup (Ranunculus andersonii) - On the Oregon List of threatened species and on Idaho's Watch List.
 - 5) Hedgehog cactus (Pediocactus simpsonii var. robustio)- On Idaho's State Watch List.
 - 6) Rigid Thread-stem (Nemacladus rigidus) - On Idaho's State Watch List.
 - 7) Inch-High Lupine (Lupinus uncialis) - On Idaho's and Oregon's Watch Lists.
 - 8) Bailey's Ivesia (Ivesia baileyi) - On Idaho's State Watch List.
- c. Wildlife Values - The WSAs contain an abundance and diversity of wildlife species including several sensitive species identified on State Watch Lists maintained by state wildlife agencies and the BLM. These sensitive species include California bighorn sheep, river otter, bobcat, and mountain quail. Other principle species include mule deer, antelope, Canada geese and other waterfowl, raptors (golden eagles and bald eagles), sage grouse, chukar, beaver, and mountain lion (for detail see Chapter III, Wildlife Values).
- d. Cultural Resources - The WSAs are rich in cultural resources. The resources include historic sites containing ruins of stone or log buildings and other artifacts associated with our early agricultural and livestock heritage. In Oregon, WSA OR-3-195 (ID-16-48B) also contains numerous prehistoric petroglyphs. Other prehistoric artifacts within the WSAs include stone tools and chips produced in tool making (for detail see Chapter III, Cultural Values).

3. Multiple Use Benefits

Wilderness designation of the WSAs is not necessary to secure long-term multiple resource benefits to other resource values.

4. Diversity in the National Wilderness Preservation System (NWPS)

- a. Ecosystem Representation - The eight WSAs lie within a rhyolite canyonlands/sagebrush-bunchgrass ecosystem. This ecosystem is part of a broad landform and vegetation classification known as the Intermountain Sagebrush Province/Sagebrush Steppe ecosystem (ecosystem 3130-49, Bailey, R. G., Kuchler, A. W., 1966, Potential Natural Vegetation of the United States, ISDI, Geological Survey). The Sagebrush Steppe ecosystem is widespread over much of southern Idaho, eastern Oregon and Washington, and portions of northern Nevada, California, and Utah. Designated or potential wilderness acreages within the Sagebrush Steppe ecosystem including the eight WSAs under study are listed below.

TABLE V-1

SAGEBRUSH STEPPE ECOSYSTEM REPRESENTATION

<u>Status</u>	<u>Acres</u>	<u>Units</u>
Designated Wilderness <u>1/</u>		
USFS (Nevada)	6,483	1
USFS (California)	28,062	1
Administratively Endorsed		
USFS (California) <u>2/</u>	400	1
FWS (Nevada)	341,500	1
FWS (Oregon)	15,500	1
Other Study Areas		
USFS <u>2/</u>	34,570	4
BLM	<u>4,231,556</u>	<u>140</u>
TOTAL	4,658,071	149

1/ Designated wilderness does not include any rhyolite canyonlands/sagebrush-bunchgrass ecosystem.

2/ Forest Service areas administratively endorsed and other study areas were identified in RARE II and are now being reevaluated by the Forest Service.

- b. Proximity to Boise Population Center: Within One Day's Drive of the Boise Metropolitan Statistical Area (Boise MSA) - The major access points to the Owyhee River Canyonlands WSA complex can be reached within three to five hours

driving time from the Boise population center. Within five hours drive of Boise there are eight designated wilderness areas totalling 3,250,344 acres. These areas are listed on the following table:

TABLE V-2

PROXIMITY OF WILDERNESS TO BOISE, IDAHO

<u>Wilderness Area</u>	<u>Agency</u>	<u>Acres</u>
Sawtooth (Idaho)	USFS	217,088
River of No Return (Idaho)	USFS	2,229,211
Hells Canyon (Idaho/Oregon)	USFS	192,233
Jarbridge (Nevada)	USFS	64,667
Eagle Cap (Oregon)	USFS	293,476
Strawberry Mountain (Oregon)	USFS	33,003
Wenaha-Tucannon (Oregon/Washington)	USFS	177,423
Craters of the Moon (Idaho)	NPS	43,243

- c. Geographical Distribution of Wilderness - The existing wilderness areas of the NWPS are geographically concentrated in the Sierra Nevada Mountain Range and Cascade Mountain Range of California, Oregon, and Washington, and in the Rocky Mountains and Continental Divide area of Idaho, Montana, Wyoming, Colorado, and eastern Utah. The largest of the nation's wilderness areas (excluding Alaska) are concentrated in northern and central Idaho, eastern Montana, and northwest Wyoming. There are very few wilderness areas in Nevada, eastern Utah, southeast Oregon, and southern Idaho.

A summary of the existing or potential wilderness areas within the three states involved including the eight WSAs under study is shown on the following table.

TABLE V-3

EXISTING OR POTENTIAL WILDERNESS AREAS
IN OREGON, IDAHO AND NEVADA

<u>Status</u>	<u>Acres</u>	<u>Units</u>
Oregon:		
Designated Wilderness		
USFS	1,214,208	13
FWS	497	2
Administratively Endorsed		
USFS*	389,529	16
NPS	148,301	1
FWS	46,462	2
Other Study		
USFS*	356,459	18
BLM	2,492,788	85
FWS	51,838	3
Idaho:		
Designated Wilderness		
USFS	3,825,016	5
NPS	43,243	1
Administratively Endorsed		
USFS*	1,035,674	20
NPS	22,217	1
Other Study		
USFS*	640,924	11
BLM	1,706,442	58
Nevada:		
Designated Wilderness		
USFS	64,667	1
Administratively Endorsed		
USFS*	393,345	6
NPS	42,000	3
FWS	1,785,340	6
Other Study		
USFS*	394,781	6
NPS	252,585	13
BLM	4,899,650	89

*The Forest Service is currently reevaluating administratively endorsed and other study areas. These figures are subject to change.

B. CRITERION #2: MANAGEABILITY OF WSAs AS DESIGNATED WILDERNESS

Each of the WSAs can be managed in the long term as designated wilderness to protect its wilderness characteristics and supplemental values. The ability to provide long-term protective management is due to the fact that the areas are generally self-protecting because of rugged topographic relief, rocky soil conditions, and due to their isolation from major highways. The management of access routes to retain existing levels of construction and maintenance can be used to enhance wilderness management. The manageability of each WSA or the grouping of WSAs can be improved by adjusting the recommended wilderness boundaries away from portions of the WSA boundaries in all alternatives except the All Wilderness Alternative.

Management adjustments eliminated WSA lands from the wilderness recommendation if that portion of the WSA had:

1. Existing resource developments that locally impacted naturalness and would affect management for solitude and primitive recreation opportunities.
2. Terrain and vegetation features which could not realistically be protected from off-road vehicle use. These areas also had to be lacking in high quality wilderness characteristics and supplemental values in order to be eliminated; furthermore, the adjusted boundary had to be more protectable and definable.
3. Inescapable external influences immediately adjacent to the WSA which adversely affect opportunities for solitude or primitive recreation. If an area affected by external influences has high quality supplemental wilderness values, or the retention of the area was essential for the overall management of the WSA as wilderness, the area was not eliminated. Again, the adjusted boundary had to be protectable and definable.
4. Private inholdings which created unmanageable land configurations.

Some non-WSA lands have also been included in several wilderness alternatives to improve the management of some of the areas. Small acreages of additional public land were recommended for inclusion if the land was part of the original roadless inventory unit (the lands are not separated from the WSA by a road, way or non-federal land), and:

1. the land has topographic features which provide a more definable and protectable wilderness boundary than those originally located during the wilderness inventory, or
2. the land would enhance the protection of significant, high quality wilderness characteristics or supplemental values of the wilderness area.

Each alternative presented in this EIS, contains recommendations for prohibiting recreational use of existing roads and/or ways (two-wheel tracks). These closures to general public use would enhance the management of wilderness characteristics (naturalness; solitude and primitive recreation opportunities) and supplemental wilderness values. Though closed to the general public, these vehicle routes may be used for livestock operations when authorized by BLM. Routes would be closed by posting of signs and fencing. Boundary adjustments have 1) been made to eliminate major cherry stem roads or ways whenever possible, 2) located along topographic features which would require minimal fencing, 3) located along existing fence lines already established for grazing management, or 4) located sufficient distance from boundary roads to limit unauthorized vehicle use without the need for fencing.

The miles of roads and ways proposed for closure to the general public in each WSA under each alternative are shown on Table IV-2, in Chapter IV.

State inholdings or split-state lands (federal lands with mineral rights held by the State of Oregon) within the WSAs are all natural in character. Many of the state sections lie across the canyons of the WSAs. Vehicle access via roads or ways is lacking to most of the state lands. Because of their natural character and limited potential for development, state lands do not present a serious management problem. Furthermore, Most state inholdings within Idaho have been involved in negotiations for federal-state land exchanges in what are known as the South Mountain and Riddle Exchanges. If mineral or energy resources are discovered on state lands, subsequent development could impact the wilderness quality of the WSAs.

All private inholdings within or between the WSAs are accessed by roads except for two 40 acre blocks at the bottom of the canyons in WSA ID-16-49D and 111-49E. Both of these blocks are undeveloped. Current access to other private lands, most of which lie between WSAs, is via WSA boundary roads or very short cherry stem roads. The continued use of these lands for ranching or subsequent future development for other potential uses would not substantially impair the wilderness quality of the WSA complex as a whole.

For more detail on manageability adjustments for each WSA, refer to Table V-4.

C. QUALITY STANDARDS

1. Energy and Mineral Resources

The WSAs have potential for energy and mineral resources. However, the favorability for developing these resources cannot be substantiated at this time. Since a preliminary suitable wilderness recommendation is being made for the Owyhee River WSAs, a more detailed mineral survey will be conducted by the U.S. Geological Survey and the Bureau of Mines before a final determination of mineral and energy conflict can be incorporated into the decision making process.

TABLE V-4

MANAGEABILITY ADJUSTMENTS FOR WSAS 1/

WSA	Acreage Adjustment	Adjustment Rationale
OR-3-195 (ID-16-48B)	43,765 acre reduction in Oregon	Northern Tip - Two small fingers of land with flat topography surrounded by state and private lands and by roads which cannot be managed for solitude or primitive recreation opportunities. Boundaries established by legal subdivisions. West-central Portion - Adjacent private property, major access roads along WSA boundary, and relatively flat terrain would make it difficult to manage for solitude and primitive recreation opportunities. Several ways within area also locally impact naturalness and make it difficult to restrict vehicle access to maintain solitude and primitive recreation opportunities. Boundaries established by legal subdivision and vehicle track (way). Southwest Tip - Concentration of three 40 acre private inholdings and two cherry stem roads/water pipelines would not permit management for solitude and primitive recreation opportunities. Management would be difficult because of the need to provide access private inholdings and for regular maintenance of pipeline systems. Boundary established by private property lines. Southeast Portion - Area isolated from remainder of WSA by cherry stem road; a concentration of ways and stock ponds locally impacts naturalness and would make it difficult to manage for solitude and primitive recreation opportunities. Management would be difficult because of need to provide access to range improvements. Rehabilitation of area to more natural conditions would not be possible because of continued use of ways and road for livestock management. Boundary defined by cherry stem road and split-estate lands.
	1,480 acre addition	Northeast Neck - Area has crested wheatgrass seeding (non-native species) but is otherwise natural. Area would provide important habitat for reintroduced bighorn sheep and would enhance management of the canyon. Boundary established by bighorn habitat needs.
ID-16-48C	None	No management problems identified.
ID-16-49A	3,440 acre reduction	South-central Portion and Northern Tip - Concentration of stock ponds and cherry stem roads locally impact naturalness and would make management for solitude and primitive recreation opportunities difficult because of need to provide continued access to range improvements via the cherry stem roads. Boundary adjusted to coincide with watershed boundary and major topographic features.

TABLE V-4

MANAGEABILITY ADJUSTMENTS FOR WSAS 1/ (continued)

WSA	Acreage Adjustment	Adjustment Rationale
ID-16-49A (Continued)	680 acre addition	Southwest and Northwest Periphery - Boundaries adjusted to coincide more closely to watershed boundaries and major topographic features. Such features are not contained within WSA. Additional lands are natural. Southeast Corner - Boundary adjusted to align with terrain features and to coincide with boundary adjustments for WSA ID-111-49E to make a more manageable land configuration. Boundary adjustment is along legal subdivision. Additional lands are natural.
ID-16-49D <u>2/</u>	320 acre reduction	Western Periphery - Boundary adjusted to ridgeline adjacent to WSA boundary road. Adjustment would remove a drainage bottom significantly impacted by a large reservoir and the WSA boundary road. Also, ridge line has small saddle which can provide opportunity to restrict vehicle access on cherry stem road and ways with minimal fencing. Adjusted boundary located along legal subdivisions.
ID-111-49E <u>2/</u>	420 acre addition	Southwest Periphery - Boundary adjusted (both within and outside the WSA) to align with topography because portion of WSA boundary road is difficult to define. Adjustment also made to allow for joining of boundary with WSA ID-16-49A and 16-49D to make a more manageable land configuration. Adjusted boundary located along legal subdivisions. Additional lands are natural. Eastern Periphery - Boundary adjusted to coincide more closely with major topographic features. Adjusted boundary located along legal subdivisions. Additional lands are natural.
ID-16-52 <u>2/</u>	1,820 acre reduction	Northern Portion - Major livestock management facility serviced by cherry stem road is highly visible throughout the area. Continued use of this facility would not allow for management of solitude and primitive recreation opportunities. Soil conditions, vegetation and topography would make it difficult to prevent ORV use in the area. Adjusted boundary coincides with major topographic features and/or legal subdivisions.
ID-16-53 <u>2/</u> (NV-010-103A)	6,412 acre reduction (3,750 acres in Idaho and 2,662 acres in Nevada)	Northeast Portion - Adjacent roads and livestock developments highly visible in the area. Area could not be managed for solitude and primitive recreation values. Adjusted boundary aligns with legal subdivisions along a ridgeline.

TABLE V-4

MANAGEABILITY ADJUSTMENTS FOR WSAS 1/ (continued)

WSA	Acreage Adjustment	Adjustment Rationale
ID-16-53 <u>2/</u> (continued)		Western Portion - Boundary adjusted to eliminate most of the length of two cherry stem roads. Adjusted boundary located on legal subdivisions along topographic features. Ridgeline boundaries have small saddles which provide opportunity to restrict vehicle access on remainder of roads with minimal fencing. Closure and rehabilitation of cherry stem roads not possible because they service stock ponds.
NV-010-106	8,350 acre reduction	Southern Portion - Area significantly impacted by river access roads (WSA boundary roads) and Northwest Gas Pipeline. Area could not be managed for solitude and primitive recreation opportunities. Area includes those WSA lands in conflict with utility corridor along pipeline. Adjusted boundary is located along major topographic breaks and legal subdivisions.
		Southern Half - Area cut off from northern half by private inholding which is accessed by a road and wagon trail from the west and east WSA boundaries; access must be maintained. Improved river access via these routes may be necessary to provide continued primitive recreation opportunities on the upper South Fork Owyhee River. Plateaus affected by external influences (vehicle traffic on boundary roads). Portions off plateaus susceptible to ORV use. Canyon is too shallow and easily accessible to be adequately protected. Adjusted boundary is along the private property lines and vehicle routes.
Total Reduction	64,107 acres	
Total Addition	2,580 acres	

1/ All areas eliminated had to have management problems as stated plus relatively low wilderness characteristics and supplemental values. All areas added had to have relatively high supplemental values, and/or would improve overall management of the wilderness area, and were part of the original inventory unit.

2/ Additional acreage reductions occur in these WSAs under the All Manageable Wilderenss Alternative because of resource use conflicts with the utility corridor along the Northwest Gas Pipeline.

2. Impacts on Other Resources

Wilderness designation would have adverse impacts for livestock grazing, potential energy and mineral development, and motorized recreation opportunities. The allotments affected by the WSAs could have only a 24% increase (over 1982 active preference) in livestock AUMs under wilderness designation rather than the 37% increase which could occur without wilderness designation. Though no mineral or energy resources are known, wilderness would prevent future exploration for these resources. Wilderness would also prohibit future consideration of utility corridors in the area. Those roads and all ways customarily used for motorized access would be closed to recreational use, but the major access routes into the canyons would remain open for public use.

3. Impacts of Nondesignation on Wilderness Values

Without wilderness designation, 287,000 acres of canyonlands and plateaus associated with the Owyhee River and South Fork Owyhee River would be managed under the Owyhee River ACEC/HMA. Human disturbance of bighorn sheep habitat would be minimized within the canyons. The natural character of the canyons would remain unchanged unless mineral resources are discovered or dams constructed. Bighorn management objectives for the plateaus would not prohibit continued use of existing vehicle routes. Existing routes could become more heavily used as motorized recreation use increases resulting in reductions in naturalness and in outstanding opportunities for primitive recreation and solitude. Lands not managed as bighorn sheep habitat could have additional vehicle routes (roads and ways) developed as recreation use increases or as other resource development occurs. Lands on the plateaus could receive land treatments, seeding to non-native species, increased grazing use, and structural range improvements which could further reduce naturalness, outstanding opportunities for primitive recreation, and ecological values. Without wilderness designation, proposed utility corridors could be authorized at some future date and result in high voltage powerlines which would reduce wilderness characteristics and scenic quality over vast areas of the plateaus. If mineral and energy resources were located, the naturalness of the WSAs could be lost due to the development of mines, roads, pipelines or other structures.

4. Public Comments

Public support for wilderness designation along the Owyhee River has come largely from the Boise metropolitan area and major population centers along the west coast. During public review of the Owyhee and Bruneau MFP wilderness recommendations, those supporting wilderness designation considered it necessary to preserve the area's ecological values, scenic values, white-water boating opportunities, bighorn sheep habitat, and for wildlife and recreation values in general. Public comment

specifically supported proposals to combine the WSAs into one single wilderness area.

During public review of the Southern Malheur MFP, those comments in support of wilderness designation supported a rim-to-rim wilderness, an all manageable wilderness or an all wilderness recommendation.

Though unsolicited, most people providing input during the EIS scoping process identified their alternative preference. Those supporting wilderness designation overwhelmingly identified the All Wilderness Alternative and/or the All Manageable Wilderness Alternative.

Opposition to wilderness designation has come principally from local residents of Owyhee, Malheur and Elko counties and other rural areas of the three affected states. Those who oppose wilderness designation feel that "multiple-use" would provide greater public benefit; that wilderness was not multiple-use.

5. Local Social and Economic Effects

There are no significant social or economic impacts to Owyhee, Malheur or Elko County.

6. Consistency With Other Plans

The proposed Owyhee Canyonlands Wilderness is consistent with the General Plan for Elko County, Nevada (June, 1971) and the Malheur County, Oregon Comprehensive Plan (1983). The Owyhee County, Idaho Comprehensive Plan Update (1980) does not address wilderness recommendations.

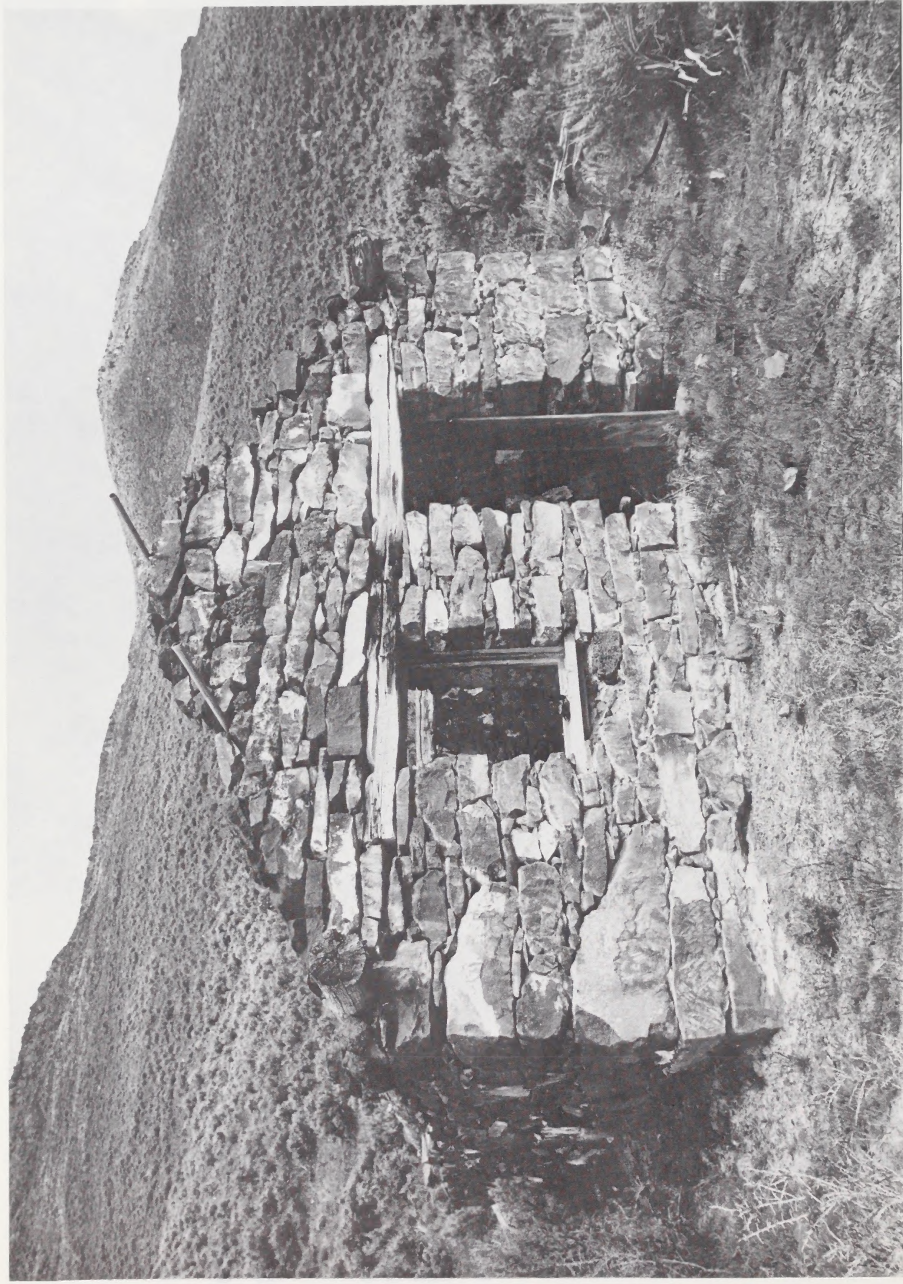
The management objectives of the Owyhee Canyonlands Wilderness are consistent with wildlife management objectives identified by state wildlife management agencies in Oregon, Idaho, and Nevada.



Juniper in Owyhee River Canyon

WSA OR-3-195

CHAPTER VI



Bull Camp (Historical Site)

CHAPTER VI
COORDINATION, CONSISTENCY, AND PUBLIC PARTICIPATION

A. COORDINATION AND CONSULTATION

Coordination and consultation has been a continuing process beginning in 1978 with the initial wilderness inventory of BLM lands. The issue identification and alternative formulation process for this EIS involved individual contacts with federal, state and local government agencies, organizations or interest groups, and individuals affected by the proposed action. Approximately 700 informational packets were mailed out to solicit comments. The scoping process for the EIS is outlined in Chapter I.

B. CONSISTENCY

The proposed Owyhee Canyonlands Wilderness is consistent with the General Plan for Elko County, Nevada (June, 1971) and the Malheur County, Oregon Comprehensive Plan (1983). The Owyhee County, Idaho Comprehensive Plan Update (1980) does not address wilderness recommendations.

The management objectives of the Owyhee Canyonlands Wilderness are consistent with wildlife management objectives identified by state wildlife management agencies in Oregon, Idaho, and Nevada.

C. PUBLIC PARTICIPATION

1. Preparation of Draft EIS

Each of the three districts involved prepared a Wilderness Study Public Participation Plan to continue the public review process begun during the wilderness inventory. The district plans coordinate all wilderness studies to maintain consistency between issue identification and the BLM Wilderness Study Policy.

The government agencies, elected officials, and interest groups that participated in the EIS process by providing input during the scoping phase for the Draft EIS are listed below.

TABLE VI-1

PUBLIC PARTICIPATION IN EIS SCOPING PROCESS

Type of Respondent

Elected Officials

- 1) Owyhee County Sheriff

TABLE VI-1 (continued)

PUBLIC PARTICIPATION IN EIS SCOPING PROCESS

Type of Respondent

State Agencies

- 1) Idaho Division of Highways, Dist. 3
- 2) Idaho Dept. of Fish & Game, Region 3
- 3) Oregon Dept. of Transportation, Parks & Rec. Div.
- 4) Nevada Division of State Lands
- 5) Nevada Dept. of Wildlife
- 6) Idaho Dept. of Water Resources

Federal Agencies

- 1) Soil Conservation Service
- 2) Bureau of Indian Affairs, Eastern Nevada Agency
- 3) Dept. of Energy, Bonneville Power Administration

Environmental Organizations

- 1) Mazamas
- 2) Wildlife Management Institute
- 3) Idaho Environmental Council
- 4) Idaho Consumer Affairs & Idaho Wildlife Federation
- 5) Sierra Club - Oregon Chapter
- 6) Sierra Club - Northern Rockies Chapter
- 7) Sierra Club - Toiyabe Chapter
- 8) American Wilderness Alliance
- 9) The Wilderness Society - Northwest Representatives
- 10) The Wilderness Society - Northern Rockies Rep.
- 11) Committee for Idaho's High Desert
- 12) Idaho Conservation League
- 13) Grande Ronde Resources Council, Inc.

Mining Companies

- 1) Danner Mines, Inc.
- 2) Minerals Exploration Coalition

River Outfitters

- 1) Cascade Whitewater Adventure
- 2) Wilderness World, Inc.

Grazing Permittees within WSA boundaries

- 1) Glenns Ferry Grazing Assn., Inc.
- 2) Michael E. Stanford

Livestock Organizations

- 1) Owyhee Cattlemen's Assoc. Action Committee

Utility Companies

- 1) Sierra Pacific Power Co.
- 2) Pacific Power and Light Co.
- 3) Idaho Power Co.

Individuals (173)

D. AGENCIES, ORGANIZATIONS AND PERSONS TO WHOM DRAFT EIS WAS SENT

The Draft Owyhee Canyonlands Wilderness EIS was distributed to the following elected officials, government agencies, organizations (interest groups) and individuals for review and comment.

1. Elected Officials

Federal:

Senator Paul Laxalt (Nevada)
Senator Mark Hatfield (Oregon)
Senator Chic Hecht (Nevada)
Senator James McClure (Idaho)
Senator Robert Packwood (Oregon)
Senator Steve Symms (Idaho)
Congressman Larry Craig (Idaho)
Congressman George Hansen (Idaho)
Congressman Harry Reid (Nevada)
Congressman Bob Smith (Oregon)
Congresswoman Barbara Vucanovich (Nevada)

State:

Governor Victor Atiyeh (Oregon)
Governor Richard Bryan (Nevada)
Governor John Evans (Idaho)
Senator Norman Glaser (Nevada)
Senator James Risch (Idaho)
Senator Mike Thorne (Oregon)
Senator Eugene Timms (Oregon)
Senator Walt Yarbrough (Idaho)
Senator Clifton Young (Nevada)
Representative Bob Brogotti (Oregon)
Representative Bob Harper (Oregon)
Representative Denny Jones (Oregon)
Representative Gerry Montgomery (Idaho)
Representative Max Simpson (Oregon)
Representative Lyman Winchester (Idaho)
Assemblyman Byron Bilyeu (Nevada)
Assemblyman John Marvel (Nevada)

Local:

Ada County Commissioners
Ada County Sheriff
Canyon County Commissioners
Elko County Commissioners
Elko County Sheriff
Malheur County Commissioners
Malheur County Sheriff
Owyhee County Commissioners
Owyhee County Sheriff

2. Federal Agencies

Department of Agriculture:

U.S. Forest Service

U.S. Soil Conservation Service

Department of Defense:

U.S. Air Force

Department of Energy:

Bonneville Power Administration

Department of the Interior:

National Park Service

U.S. Bureau of Indian Affairs

U.S. Bureau of Reclamation

U.S. Bureau of Mines

U.S. Fish and Wildlife Service

U.S. Geological Survey

Department of Transportation:

Federal Aviation Administration

Environmental Protection Agency

3. State Agencies, Commissions or Boards

Idaho Department of Agriculture

Idaho Department of Fish and Game

Idaho Department of Health, Welfare and Environmental Services

Idaho Department of Lands

Idaho Department of Parks and Recreation

Idaho Department of Transportation

Idaho Department of Water Resources

Idaho Historic Preservation Office

Idaho Public Utilities Commission

Idaho State Clearing House

Idaho Outfitters and Guides Board

Nevada Bureau of Mines

Nevada Department of Conservation and Natural Resources

Nevada Department of Wildlife

Nevada Historical Preservation Office

Nevada Legislative Council Bureau

Nevada State Indian Commission

Nevada State Planning Coordinator's Office

Oregon Department of Agriculture

Oregon Department of Energy

Oregon Department of Environmental Quality

Oregon Department of Fish and Wildlife

Oregon Department of Forestry

Oregon Department of Geology and Mineral Industries

Oregon Department of Transportation

Oregon Division of Lands
Oregon State Historic Preservation Office
Oregon State Marine Board
Oregon State Parks and Recreation Board
Oregon State Scenic Waterways Commission
Oregon sheep Commission
Oregon State Soil and Water Conservation Commission

4. Local Agencies

Elko County Planning Commission
Elko County Manager
Malheur County Planning Department
Malheur County Historical Society
Owyhee County Historic Society

5. Advisory Councils

District Multiple Use Advisory Councils
District Grazing Advisory Boards

6. Organizations

Appaloosa Horse Club
American Fisheries Society
American Wilderness Alliance
Association of Idaho Cities
Association of Western Native Plant Societies
Audubon Society
Boise Chamber of Commerce
Caldwell Chamber of Commerce
Committee for Idaho's High Desert
Desert Bighorn Sheep Council
Desert Fishes Council
Desert Raiders
Desert Rats
Desert Research Institute
Desert Tortoise Council
Ducks Unlimited
Earth First
Eastern Oregon Mining Association
Elko Chamber of Commerce
Elko Civil Air Patrol
Elko County Resource Action Council
Elko County Sportsmen Association
Federation of Western Outdoor Clubs
Four-Wheel Drive Club, Elko
Friends of the Earth
Friends of Nevada Wildlife
Gem County Rock and Mineral Society
Good Sam Club
Grande Ronde Resource Council, Inc.
Idaho Archaeological Society
Idaho Association of Counties

Idaho Carey Act Association
Idaho Cattlemen's Association
Idaho Conservation League
Idaho Environmental Council
Idaho Historical Society
Idaho Mining Association
Idaho Natural Areas Coordinating Committee
Idaho Outdoor Association
Idaho Outfitters and Guides Association
Idaho Petroleum Council
Idaho State Grange
Idaho Trail Machine Association
Idaho Wildlife Federation
Idaho Whitewater Association
Institute for High Desert Studies
Intertribal Council of Nevada
Jackpot Sportsmen's Club
Knights Motorcycle Club
Malheur Livestock Association
Mazama Conservation League
Mountain Home Air Force Base Sportsman Club
National Council of Public Land Users
National Public Land Advisory Council
National Public Lands Task Force
National Rifle Association of America
National Wildlife Federation
Natural Resource Defense Council
Nature Conservancy
Nevada Archaeological Association
Nevada Cattlemen's Association
Nevada Historical Society
Nevada Land Action Association
Nevada Mining Association
Nevada Open Land Organized Council
Nevada Outdoor Recreation Association
Nevada Public Land Users
Nevada Wildlife Federation
Northeastern Nevada Miners and Prospectors
Northern Nevada Native Plant Society
Northwest Rafter Association
Northwest Mining Association
Oregon Association of Counties
Oregon Cattlemen's Association
Oregon Council of Rocks and Minerals
Oregon Environmental Council
Oregon Historical Society
Oregon Mining Association
Oregon Natural Resources Council
Oregon Packers and Guides
Oregon Park and Recreation Society
Oregon Wilderness Coalition
Owyhee Cattlemen's Association
Owyhee Gem and Mineral Society
Pacific Legal Foundation

Pacific Northwest 4-Wheel Drive Association
Public Lands Council
River Rafter's of Oregon
Sagebrush Rebellion, Inc.
Sierra Club
Snake River Gem Club
Society for Range Management
Treasure Valley Club
Treasure Valley Rock and Gem Club
United 4 Wheel Drive Association
Whatever 4 Wheelers
Western River Guides Association
Wilderness Institute
Wilderness Society
Wildlife Management Institute
Wildlife Society
Wildlife Research Institute

7. Concerned Individuals, Businesses, and Schools

Affected grazing permittees
Affected river outfitters or guides
Other individuals
Other businesses and industries (i.e., minerals and energy)
Colleges and universities

Name	Position	Amendment/EIS Responsibilities	Education	Experience
Fred Anderson	Geologist	Geology, minerals and energy	B.S. Geology Oregon State University	4 years with U.S. Geologic Survey 4 years with Federal Highway Administration 8 years with BLM
John Benedict	Wilderness Coordinator, Recreation Planner	Document planning, editing, coordination of EIS team, alternative formulation, alternative evaluation, wilderness, scenic, vegetation, lands planning criteria and quality standard analysis	B.S. Forestry University of California, Berkeley	8 years with BLM as Recreation Technician and Wilderness Specialist/Coordinator
Stan Frazier	Economist (Idaho State Office)	Economics	B.S. Agricultural Economics Oregon State University	8 years with BLM as Economist
Larry Gould	Wildlife Management Biologist	Wildlife	B.S. Biology Boise State University	5 years seasonally and 2 years continuous with BLM as Wildlife Biologist
Frank Jenks	Archaeologist	Cultural	B.S. Anthropology University of Toledo	5 years with BLM as Archaeologist
Jack LaRocco	Range Conservationist	Livestock grazing	B.S. Wildlife and Range Management Humboldt State University	2 1/2 years Soil Conservation Service 2 1/2 years Washington State Dept. of Resources 6 1/2 years with BLM as Range Conservationist and Wildlife Biologist
Walter Meyer	Recreation Planner	Recreation and document editing	B.S. Forestry Oregon State University	1 year with National Park Service 6 years U.S. Forest Service 6 years Bureau of Outdoor Recreation 12 years with BLM as Recreation Planner
Ted Milesnick	Environmental Specialist	Quality review, document planning, issue identification and team leader for EIS	B.S. Range Management Montana State University	7 1/2 years with BLM as Range Conservationist and 5 years as EIS team member or leader.
Paul Seronko	Soil Scientist	Soils and Watershed	B.S. Soil Science University of Wisconsin, Stevens Point	2 years with State of Wyoming as Soil Specialist 4 years as Soil Scientist with BLM

LIST OF PRINCIPAL PREPARERS (continued)

OREGON AND NEVADA

Name	Position	Amendment/EIS Responsibilities	Education	Experience
Singh Ahuja	Geologist	Geology, minerals and energy	M.S. Geology Northeastern University of Chicago	3 1/2 years as Coal Geologist in private industry 3 years as Hydrologist with U.S. Geological Survey 2 years with BLM as Geologist
Steve Ashworth	Recreation Planner Wilderness Specialist	Document coordination, alternative formulation, and alternative evaluation	B.S. Renewable Natural Resources University of Nevada, Reno	5 years with BLM as Recreation Technician, Recreation Planner and Wilderness Specialist
Helen Birss	Economist	Economics	B.S. Wildlife Biology/ Botany Colorado State University M.S. Economics University of Idaho	1 year with BLM as Economist 3 years with BLM as seasonal Range Technician
Virginia Carmichael	Geology and mineral	Geology and energy resources	B.S. Geology Metro State College, Denver, CO	3 years with BLM as Geologist
Rich Conrad	Wilderness Coordinator-Recreation Planner	Document coordination, alternative formulation, alternative evaluation, and wilderness	B.S. Natural Resource Management Humboldt State University M.S. Outdoor Recreation Management Michigan State University	12 years with BLM as Wilderness Specialist, Recreation Planner and Desert Ranger
Bob Kindschy	Wildlife Biologist	Wildlife	B.S. Wildlife Management B.S. Range Management University of Idaho	6 years with BLM as Range Conservationist 21 years with BLM as Wildlife Habitat Biologist
Shawn Marteney	Range Conservationist	Livestock grazing	B.S. Range Science, Renewable Resources Texas A&M University	4 1/2 years Range Conservationist
Pat Trudell	Range Conservationist	Livestock grazing and vegetation	B.S. Rangeland Resources, Oregon State University B.S. Biology, University of California, Davis	1 year as USFS Range Conservationist 4 years as BLM Range Conservationist

GLOSSARY

Active Grazing Preference - That portion of the total grazing preference that could be licensed and used should the livestock operator desire.

Allotment Management Plan - A plan that prescribes how livestock operations will be conducted in a grazing allotment.

Animal Unit Month (AUM) - The amount of forage necessary for the sustenance of one cow or its equivalent for a period of one month.

Area of Critical Environmental Concern (ACEC) - An area within the public lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards.

Brush Control - Vegetation manipulation to reduce the amount of shrubs or trees in an area.

Chemical Treatment - The use of chemical agents to change vegetative composition of an area.

Cherry Stem Road - A road that penetrate the interior of a WSA but does not divide it into two separate areas.

Ecological Condition - The present state of vegetation in an area in relation to the climax (natural potential) plant community the area is capable of supporting.

Forage - Browse and herbaceous foods that are available to grazing animals.

Grazing System - The manipulation of livestock grazing to accomplish a desired result.

Land Treatments - Management actions to change the vegetative composition of an area.

Management Framework Plan (MFP) - A BLM planning document that outlines multiple use management objectives for an area.

Naturalness - Refers to an area which "generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable" (from Section 2(c), Wilderness Act of 1964).

ORVs - Any motorized vehicle designed for or capable of cross-country travel.

Primitive Recreation - Nonmotorized and nondeveloped types of outdoor recreational activities in a natural setting featuring a maximum degree of solitude and challenge.

Rangeland Improvements - Any structural or nonstructural improvement which directly affects or supports the use of the forage resource by domestic livestock, such as fences, line cabins, water lines, and stock tanks.

Scoping Process - Public participation process used to identify issues and alternatives to be addressed in the EIS.

Semi-Primitive Motorized Recreation - Motorized recreation activities associated with primitive roads and two-wheel tracks in areas which are otherwise natural or have minimal development.

Sensitive Species - Wildlife species which have been officially designated by the BLM and state fish and game agencies through a Memorandum of Understanding. They are species for which there is concern for their continued existence. Although these species are not in as much jeopardy as endangered or threatened species, further population or habitat declines may result in the more restrictive listing.

Site (Archaeological) - A physical location where primitive and historic human activities or events occurred which can be used to document human history.

Solitude - The state of being alone or remote from habitations; isolation. A lonely, unfrequented, or secluded place.

Suitability/Nonsuitability - A recommendation or decision whether to designate or not designate wilderness.

Supplemental Values - Resource associated with wilderness which contribute to the quality of wilderness areas.

Uncommon Species - Species that are not endangered or sensitive but are uncommon.

Vegetation Manipulation - To change the vegetative composition of an area.

Visual Resource Management (VRM) Classes - Classification of landscape according to scenic quality, public sensitivity, and visibility for major viewing points. Used to assess the visual impact of proposed developments.

VRM Class I - Areas where natural ecological changes prevail. Changes in the characteristic environment must not attract attention.

VRM Class II - Areas where new developments should not be evident in the characteristic landscape.

VRM Class III - Areas where new developments may contrast with the landscape but should remain subordinate to the landscape.

VRM Class IV - Areas where new developments may contrast with the landscape but may attract attention and be a dominant feature of the landscape in terms of scale; however, the change should repeat the basic elements.

Wilderness Study Area (WSA) - A roadless area that has been inventoried and found to have wilderness characteristics as described in Section 603 of FLPMA and Section 2(c) of the Wilderness Act of 1964.

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APPENDIX A
SUMMARY OF WILDERNESS CHARACTER OF WSAs IN Owyhee CANYONLANDS COMPLEX

WSA Number	WSA Size and Configuration	Naturalness (Imprints and External Influences)	Physical Features Affecting Wilderness Characteristics Outstanding Opportunities		Supplemental Wilderness Values
			Solitude	Primitive Recreation	
OR-3-195 (ID-16-48B)	214,380 acres	<8% impacted by imprints of man including stock ponds, ways, developed springs, fences, cherry stem roads, & historic ruins	Very large size 74 miles of Owyhee River Canyon; 10 miles of S.F. Owyhee River Canyon; 42 miles of tributary canyons include Louse Canyon of West Little Owyhee River & Antelope Canyon	Very large size Exceptionally scenic canyons Diversity in landform including sheer cliffs, steep talus slopes, small hills, & flat to rolling plateaus 84 miles of exceptional hiking & river running 42 additional miles of exceptional hiking Supplemental values add significantly to recreation experience	Scenic Ecological Scientific Wildlife Cultural
	78 miles long				
	1 to 10 miles wide				
	6 cherry stem roads totalling 20.25 miles				
	2 state in-holdings in Idaho totalling 1,280 acres				
	10,020 acres of split-estate in Oregon	External influences from ranch sites along south-east & northeast peripheries; low-flying aircraft; boundary roads	Excellent topographic screening due to rugged, meandering canyons up to 1200 feet deep Large acreage of flat to rolling plateaus creates sense of vastness and isolation; Juniper Basin plateaus create sense of separation Topography of canyons allows exchange of use between canyons & plateaus Major side canyons would attract hiking use away from main canyon Because of flatness of plateau topography, sagebrush provides good screening; juniper in northern plateaus of Idaho provides additional screening		
ID-16-48C	24,600 acres 11 miles long 1.5-5 miles wide	<1% impacted by imprints of man. Imprints limited to gap fencing	Large size 11 miles of East Little Owyhee River Canyon Topographic screening due to rugged canyons	Intensive inventory determined that WSA lacks outstanding opportunities for primitive recreation because of limited landform	Wildlife

APPENDIX A
SUMMARY OF WILDERNESS CHARACTER OF WSAs IN OWHEE CANYONLANDS COMPLEX (cont.)

WSA Number	WSA Size and Configuration	Naturalness (Imprints and External Influences)	Physical Features Affecting Wilderness Characteristics		Supplemental Wilderness Values
			Outstanding Opportunities	Primitive Recreation	
			Solitude		
ID-16-48C (cont)	No cherry stem roads 1 state in- holding total- ling 640 acres	External influences from ranch sites in northern portion & in southern periphery; low-flying aircraft	up to 800 feet deep with meandering lower talus slopes Large acreage of flat to humped plateaus creates sense of vastness & isolation Flat topography of plateaus allows sagebrush to provide screening	diversity, few recreation opportunities, low scenic quality, & limited ability for exchange of use between canyon & plateaus	
ID-16-49A	70,160 acres 18.5 miles long with 8.5 mile long northern thumb 2 - 5 mile wide 10 cherry stem roads totalling 8.5 miles 4 state in- holdings total- ling 2560 acres	<6% impacted by imprints of man including stock ponds, ways, developed springs, fences, cherry stem roads, & historic ruins External influences from ranch sites in western periphery; low-flying aircraft	Very large size 29 miles of Owhee River Canyon; 26 miles of tributary canyons including Deep Cr. - Dickshooter Canyon and Red Canyon Excellent topographic screening due to rugged, very meandering canyons up to 700 feet deep Large acreage of flat to rolling plateaus creates sense of vastness & isolation Topography of canyons & plateaus would encourage exchange of use between canyons & plateaus, & would encourage extensive use of plateaus Major side canyons would attract hiking use away from main canyon Rolling terrain of plateaus provide good screening; in flat plateau area, sagebrush provides good screening	Very large size Exceptionally scenic canyons & scenic plateaus Diversity in landform including sheer cliffs, steep cliffs, steep talus slopes, & flat to rolling or hilly plateaus 29 miles of exceptional hiking and river running 26 additional miles of exceptional hiking Supplemental values add significantly to recreation values Plateaus have good recreation use potential	Scenic Ecological Scientific Wildlife Cultural

APPENDIX A
SUMMARY OF WILDERNESS CHARACTER OF WSAs IN OYFHEE CANYONLANDS COMPLEX (cont.)

WSA Number	WSA Size and Configuration	Physical Features Affecting Wilderness Characteristics			Supplemental Wilderness Values
		Naturalness (Imprints and External Influences)	Outstanding Opportunities	Primitive Recreation	
ID-16-49D	9,990 acres 4.5 miles long 2 - 4.75 miles wide 1 cherry stem road 1.25 miles long 1 private in-holding of 40 acres	<3% impacted by imprints of man including stock ponds, a way, a cherry stem road, & historic ruins External influences from boundary roads, a pipeline bridge & a pipeline station in southeast portion; low-flying aircraft	Small size Exceptionally scenic canyons and scenic plateaus 8 miles of Oyfhee River Canyon; 1 mile of Oxbow Canyon; 4 miles of tributary canyons including Yatahoney Creek Canyon Excellent topographic screening due to rugged, very meandering canyons up to 400 feet deep Kimball Basin plateaus create sense of separation; rolling plateau topography creates sense of vastness & isolation Topography of canyon encourages exchange of use between canyons & plateaus, & would encourage extensive use of plateaus Rolling plateaus & sagebrush combine to provide screening	Exceptionally scenic canyons & scenic plateaus Diversity in landform including sheer cliffs, steep talus slopes, Oxbow Canyon, & rolling plateau basins & tablelands 8 miles of exceptional hiking & river running 5 additional miles of exceptional hiking Plateaus have good recreation use potential Supplemental values add significantly to recreation experience	Scenic Ecological Scientific Wildlife Cultural
ID-111 (16)-49E	31,540 acres 16 miles long 1.25 - 5 miles wide 2 cherry stem	< % impacted by imprints of man. Imprints including a stock pond, a historic rock corral, ways, cherry stem roads, & some fences External influences from	Large size 16 miles of Battle Creek Canyon; 3 miles of tributary canyons Excellent topographic screening due to rugged, very meandering canyons up to 300 feet deep	Large size Exceptionally scenic canyons & scenic plateaus Diversity in landform including sheer cliffs, steep talus slopes & rolling	Scenic Ecological Scientific Wildlife

APPENDIX A
SUMMARY OF WILDERNESS CHARACTER OF WSAs IN OYHEE CANYONLANDS COMPLEX (cont.)

WSA Number	WSA Size and Configuration	Physical Features Affecting Wilderness Characteristics			Supplemental Wilderness Values
		Naturalness (Imprints and External Influences)	Outstanding Opportunities	Primitive Recreation	
			Solitude		
ID-111 (16)-49E (cont)	roads totalling 1.25 miles 2 state inholdings totalling 1,280 acres	low-flying aircraft	Large acreage of rolling plateaus creates sense of vastness & isolation Topography of canyons & plateaus would encourage exchange of use between canyons & plateaus, & would encourage extensive use of plateaus Rolling terrain of plateaus combined with sagebrush provides good screening	plateaus 21 miles of exceptional hiking Plateaus have good recreation potential Supplemental values add significantly to recreation experience	Cultural
ID-16-52	13,150 acres 7.5 miles long 2.5 - 4 miles wide No inholdings 1 cherry stem road .5 mile long	<2% impacted by imprints of man including a short fence & a metal building-corrall complex at end of cherry stem road; visibility of metal building widespread but of minimal impact External influences - boundary roads, pipeline bridge & pipeline pump station in west portion; low-flying aircraft	Moderate size 13 miles of Owyhee River Canyon; 3 miles of tributary canyons including Hole Up Canyon of Juniper Creek Excellent topographic screening due to rugged, meandering canyons up to 400 feet deep Juniper basin plateaus create sense of separation; flat to bowlled topography creates sense of isolation Topography of canyons encourages exchange of use between canyons & plateaus, & would encourage extensive use of plateaus Bowlled topography of basin plateaus do not allow sagebrush to provide good screening	Exceptionally scenic canyons & scenic plateaus Diversity in landform including sheer cliffs, steep talus slopes, & flat to bowlled plateau basins & tablelands 13 miles of exceptional hiking & river running 5 additional miles of exceptional hiking Plateaus have good recreation experience Supplemental values add significantly to recreation experience	Scenic Ecological Scientific Wildlife

APPENDIX A
SUMMARY OF WILDERNESS CHARACTER OF WSAs IN OWYHEE CANYONLANDS COMPLEX (cont.)

WSA Number	WSA Size and Configuration	Naturalness (Imprints and External Influences)	Physical Features Affecting Wilderness Characteristics			Supplemental Wilderness Values
			Naturalness (Imprints and External Influences)	Outstanding Opportunities	Primitive Recreation	
ID-16-53 (NV-010-103A)	50,352 acres	<2% impacted by the imprints of man including stock ponds, fences, ways, cherry stem roads and historic ruins	External influences from ranch site in extreme north periphery & from pipeline along south periphery; low-flying aircraft; minimal affect from windmills on east boundary, some impact from boundary roads & adjacent range developments in northeast periphery	Solitude Large size 17 miles of S.F. Owyhee River Canyon Excellent topographic screening due to rugged, meandering canyons up to 800 feet deep Large acreage of flat to hilly plateaus create a sense of vastness and isolation Topography of canyon and northern plateaus would encourage exchange of use between canyons and plateaus, and would encourage use of northern hilly plateaus Hilly topography of northern plateaus provides screening; flat topography of southern plateaus allows sagebrush to provide screening	Large size Good to exceptionally scenic canyons & scenic northern canyons Diversity in landform including sheer cliffs, steep talus slopes, hills & flat plateaus 17 miles of exceptional hiking & river running Northern plateaus have good recreation use potential Supplemental values add significantly to recreation experience	Scenic Ecological Scientific Wildlife Cultural
	17 miles long					
NV-010-106	4-6 miles wide	External influences from ranch site in extreme north periphery, & from ranch site in extreme south periphery	External influences from ranch site in extreme north periphery, & from ranch site in extreme south periphery	Solitude Moderate size 18 miles of S.F. Owyhee River Canyon Excellent topographic screening due to rugged, meandering canyons up to 400 feet deep Acreage of flat plateaus & basins creates sense of vastness & isolation	Good scenic canyons Diversity in landform including sheer cliffs, rock rubble bluffs, & flat plateaus & basins 18 miles of exceptional hiking & river running Supplemental values add	Scenic Ecological Scientific Wildlife Cultural
	6 cherry stem roads totalling 6.5 miles					
NV-010-106	2 state inholdings in Idaho totalling 1280 acres; 1 private inholding in Idaho of 160 acres	<1% impacted by the imprints of man. Imprints include a stock pond, a short way, historic ruins & some fences	External influences from pipeline in north periphery, & from ranch site in extreme south periphery	Solitude Moderate size 18 miles of S.F. Owyhee River Canyon Excellent topographic screening due to rugged, meandering canyons up to 400 feet deep Acreage of flat plateaus & basins creates sense of vastness & isolation	Good scenic canyons Diversity in landform including sheer cliffs, rock rubble bluffs, & flat plateaus & basins 18 miles of exceptional hiking & river running Supplemental values add	Scenic Ecological Scientific Wildlife Cultural
	21,875 acres					
NV-010-106	18 miles long	External influences from pipeline in north periphery, & from ranch site in extreme south periphery	External influences from pipeline in north periphery, & from ranch site in extreme south periphery	Solitude Moderate size 18 miles of S.F. Owyhee River Canyon Excellent topographic screening due to rugged, meandering canyons up to 400 feet deep Acreage of flat plateaus & basins creates sense of vastness & isolation	Good scenic canyons Diversity in landform including sheer cliffs, rock rubble bluffs, & flat plateaus & basins 18 miles of exceptional hiking & river running Supplemental values add	Scenic Ecological Scientific Wildlife Cultural
	1.5 - 3.5 miles wide					
NV-010-106	No cherry stem roads	External influences from pipeline in north periphery, & from ranch site in extreme south periphery	External influences from pipeline in north periphery, & from ranch site in extreme south periphery	Solitude Moderate size 18 miles of S.F. Owyhee River Canyon Excellent topographic screening due to rugged, meandering canyons up to 400 feet deep Acreage of flat plateaus & basins creates sense of vastness & isolation	Good scenic canyons Diversity in landform including sheer cliffs, rock rubble bluffs, & flat plateaus & basins 18 miles of exceptional hiking & river running Supplemental values add	Scenic Ecological Scientific Wildlife Cultural
	1 private in-					

APPENDIX A
SUMMARY OF WILDERNESS CHARACTER OF WSAs IN ONYHEE CANYONLANDS COMPLEX (cont.)

WSA Number	WSA Size and Configuration	Physical Features Affecting Wilderness Characteristics			Supplemental Wilderness Values
		Naturalness (Imprints and External Influences)	Outstanding Opportunities	Primitive Recreation	
NV-010-106 (cont.)	holding of 440 acres		Solitude Topography of southern half of canyon allows exchange of use between canyons & plateaus; canyon topography in northern half is restrictive ----- Flat to sloped topography of plateaus & basins combines with sagebrush to provide screening	significantly to recreation experience	

APPENDIX B
PROPOSED PROJECT DEVELOPMENTS WITHIN WSA PORTION OF AFFECTED ALLOTMENTS

Allotment	ALTERNATIVES											
	All Manageable Wilderness			No Wilderness/No Action			Canyonlands Wilderness			Wildlife Wilderness		
	Sage- brush Control (Acres)	Water Develop- ment (Reser- voir)	Fences (miles)	Sage- brush Control (Acres)	Water Develop- ment	Fences (miles)	Sage- brush Control (Acres)	Water Develop- ment (Reser- voir)	Fences (miles)	Sage- brush Control (Acres)	Water Develop- ment	Fences (miles)
<u>OREGON</u>												
Arock 1001	0	0	0	0	2	0	0	2	0	0	0	0
Rayburn 1005	0	0	0	0	1	0	0	1	0	0	0	0
Ambrose Maher 1102	0	2	0	0	2	0	0	2	0	0	2	0
Jackies Butte 1101	0	0	0	1,000	2	0	1,000	2	0	600	0	0
Louse Canyon 1307	0	2	0	0	2	1.5	0	2	0	0	2	0
Anderson 1401	0	0	2.5	0	0	2.5	0	0	2.5	0	0	2.5
Star Valley 1402	1,900	0	6.5	1,900	0	6.5	1,900	0	6.5	1,900	0	6.5
<u>IDAHO</u>												
Sheep Hills 551	0	2	3	0	2	3	0	2	3	0	2	3
Carat 584	8,400	0	0	26,000	0	0	26,000	0	0	12,600	0	0
"45" 629	7,500	8	2	26,700	8	2	26,700	8	2	13,400	8	2
Castlehead-Lambert 634	0	0	0	100	0	0	100	—	0	100	0	0
TOTAL	17,800	14	14	55,700	19	15.5	55,700	19	14	28,600	14	14

1/ Number of spring and reservoir developments.

APPENDIX C
MAXIMUM LIVESTOCK USE FOREGONE WITH WILDERNESS DESIGNATION BY AFFECTED ALLOTMENTS 1/

Allotment	ALTERNATIVES																
	All Manageable Wilderness				No Wilderness/ No Action	Canyonlands Wilderness				Wildlife Wilderness				All Wilderness			
	Vegetative Treatment (AUMs)	Water Development (AUMs)	Pre-sentiment Available (AUMs)	Live-stock Management (AUMs)		Total AUMs	Vegetative Treatment (AUMs)	Water Development (AUMs)	Pre-sentiment Available (AUMs)	Live-stock Management (AUMs)	Total AUMs	Vegetative Treatment (AUMs)	Water Development (AUMs)	Pre-sentiment Available (AUMs)	Live-stock Management (AUMs)	Total AUMs	
OREGON			2/						2/				2/				
	—	130	1,061	137	1,328		—	—	—	—	—	130	1,061	137	—	1,328	
	—	—	594	276	870		—	—	594	276	—	—	870	276	—	461	
	—	50	—	—	50		—	—	—	—	—	50	411	—	—	—	
	—	—	—	—	—		—	—	—	—	—	—	—	—	—	—	
	157	100	605	1,546	2,408		—	63	605	1,640	—	157	100	605	1,546	2,408	
IDAHO	—	—	—	—	—	NONE	—	—	—	—	—	—	—	—	—	11,099	
	—	—	313	63	376	FOREGONE	—	—	—	313	63	—	376	—	9,044	2,055	
	—	—	2,767	1,727	4,494		—	—	—	2,767	1,727	—	4,494	1,727	2,767	4,494	
	—	—	3,505	992	4,497		—	—	—	3,505	992	—	4,497	992	3,505	4,497	
	—	—	1,509	1,752	3,261		—	—	—	1,509	1,752	—	3,261	1,752	1,509	3,468	
Gerat Indiv. 0524	—	—	—	—	—		—	—	—	—	—	—	—	—	—	—	
Bull Basin 0540	—	—	—	—	—		—	—	—	—	—	—	—	—	—	—	

1/ The use foregone is compared to the maximum potential that could be provided, assuming adequate funding to complete all range improvement projects. See Table IV-4 for the increases in livestock forage projected under all alternatives.

2/ Presently available AUMs are AUMs that are currently being produced but are not being grazed by livestock.

APPENDIX C
MAXIMUM LIVESTOCK USE FOREGONE WITH WILDERNESS DESIGNATION BY AFFECTED ALLOTTMENTS (continued) 1/

Allotment	ALTERNATIVES																
	All Manageable Wilderness				No Wilderness/No Action	Canyonlands Wilderness				Wildlife Wilderness				All Wilderness			
	Vegetative Treatment (ANMs)	Water Development (ANMs)	Pre-sentimental Available (ANMs)	Live-stock Management (ANMs)		Total ANMs	Vegetative Treatment (ANMs)	Water Development (ANMs)	Pre-sentimental Available (ANMs)	Live-stock Management (ANMs)	Total ANMs	Vegetative Treatment (ANMs)	Water Development (ANMs)	Pre-sentimental Available (ANMs)	Live-stock Management (ANMs)	Total ANMs	
IDAHO (continued)			2/						2/					2/			
Sheep Hills 0551	—	—	—	765	—	—	—	—	—	—	—	—	—	—	—	—	
Garat 0584	2,250	—	—	—	3,015	—	—	2,050	—	—	765	—	—	—	2,260	—	
Crutcher Crossing 0593	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
"45" 0629	3,630	—	—	810	4,440	—	—	3,630	—	—	—	810	—	—	3,635	—	
Castlehead-Lambert 0634	—	—	465	290	780	NONE	—	—	—	—	—	465	290	465	25	290	
Big Springs 0803	—	—	—	1,900	1,900	FOREZONE	—	—	—	—	—	1,855	—	—	1,900	1,900	
Riddle 0805	—	—	—	900	900	—	—	—	—	—	—	905	—	—	—	915	
Northwest 0808	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
NEVADA	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
TOTAL	6,062	280	10,819	11,158	28,319	0	0	0	0	60	60	5,743	280	10,819	11,075	27,917	
															6,284	19,961	
															13,165	39,690	

1/ The use foregone is compared to the maximum potential that could be provided, assuming adequate funding to complete all range improvement projects. See Table IV-4 for the increases in livestock forage projected under all alternatives.

2/ Presently available ANMs are ANMs that are currently being produced but are not being grazed by livestock.

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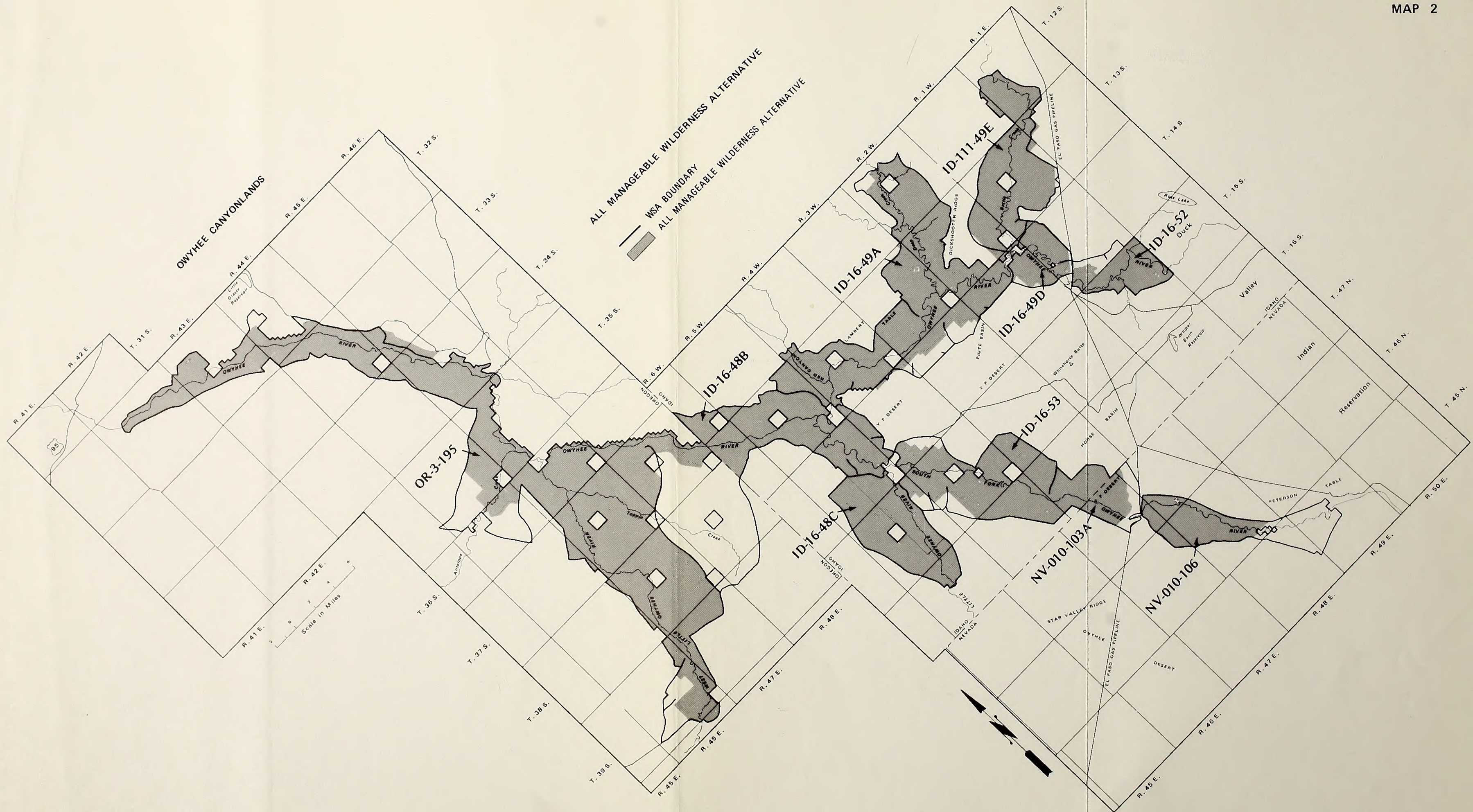
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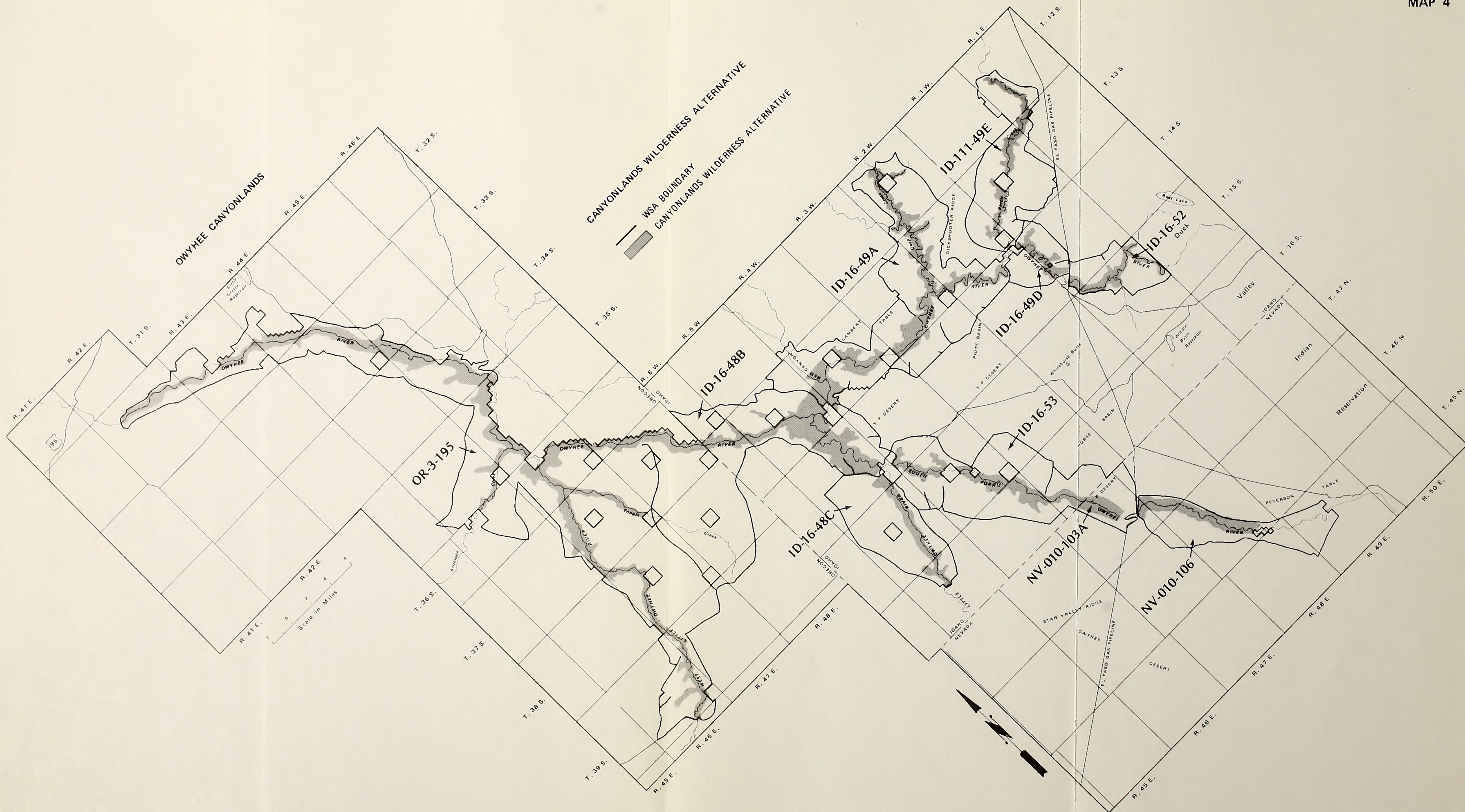
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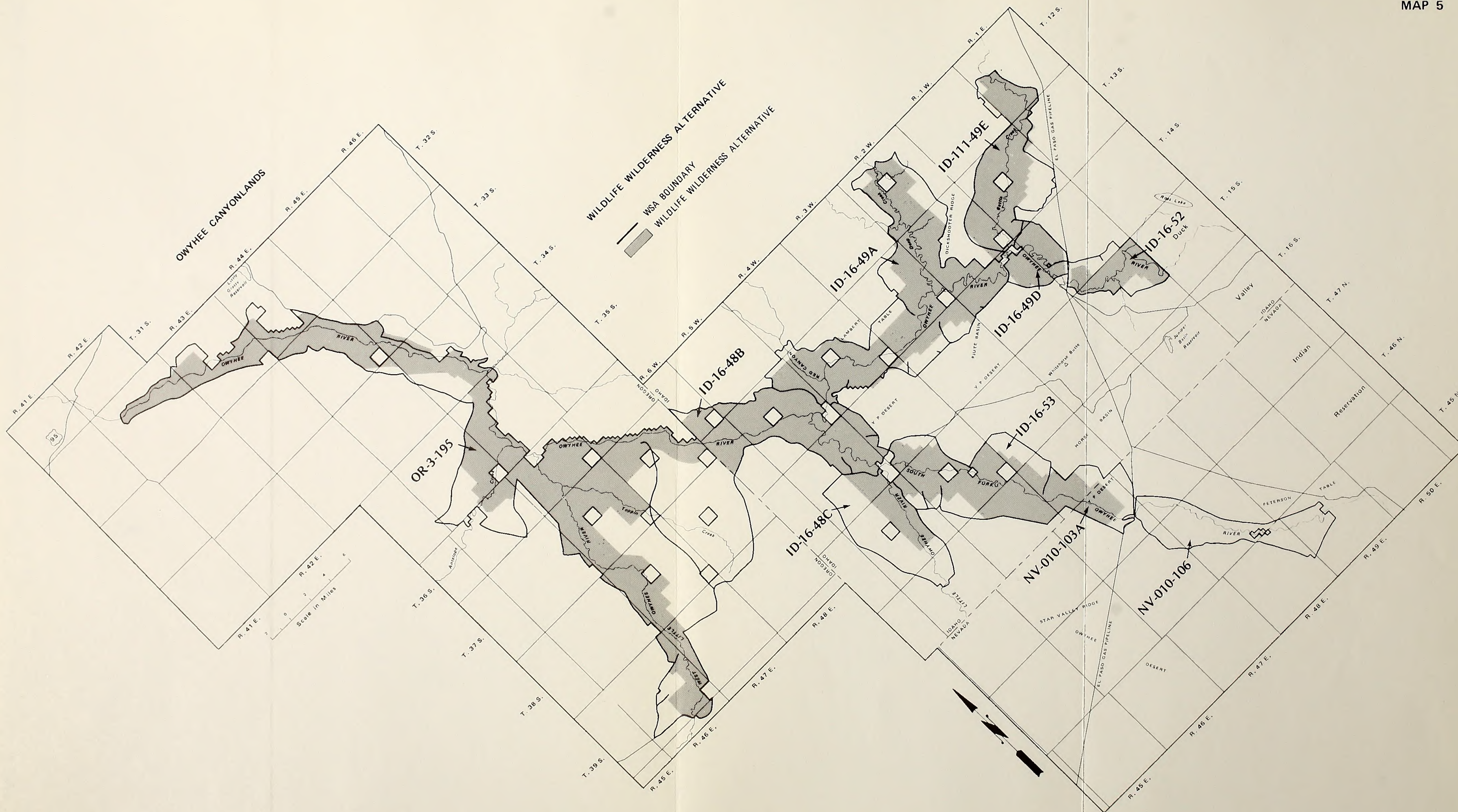
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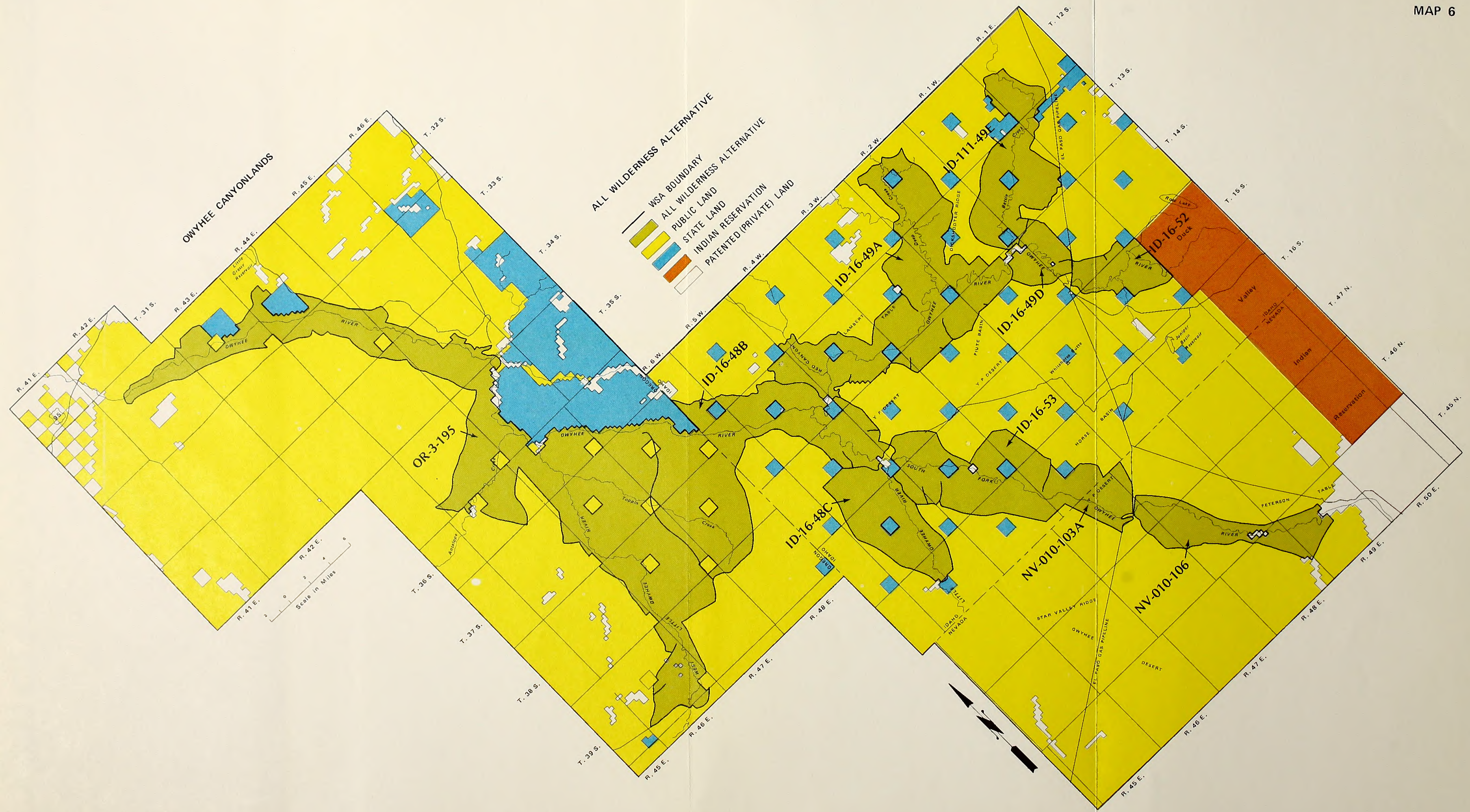
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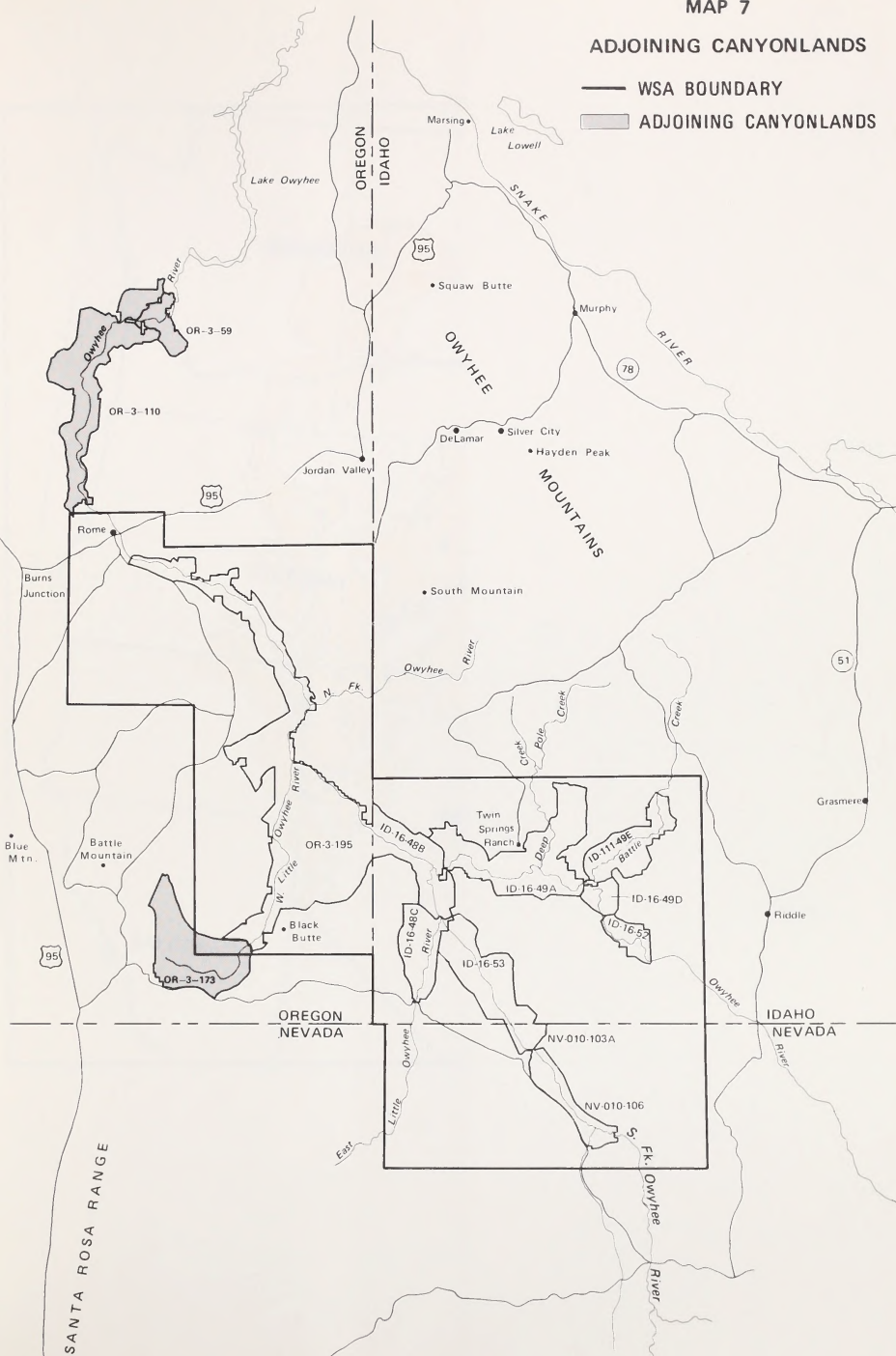


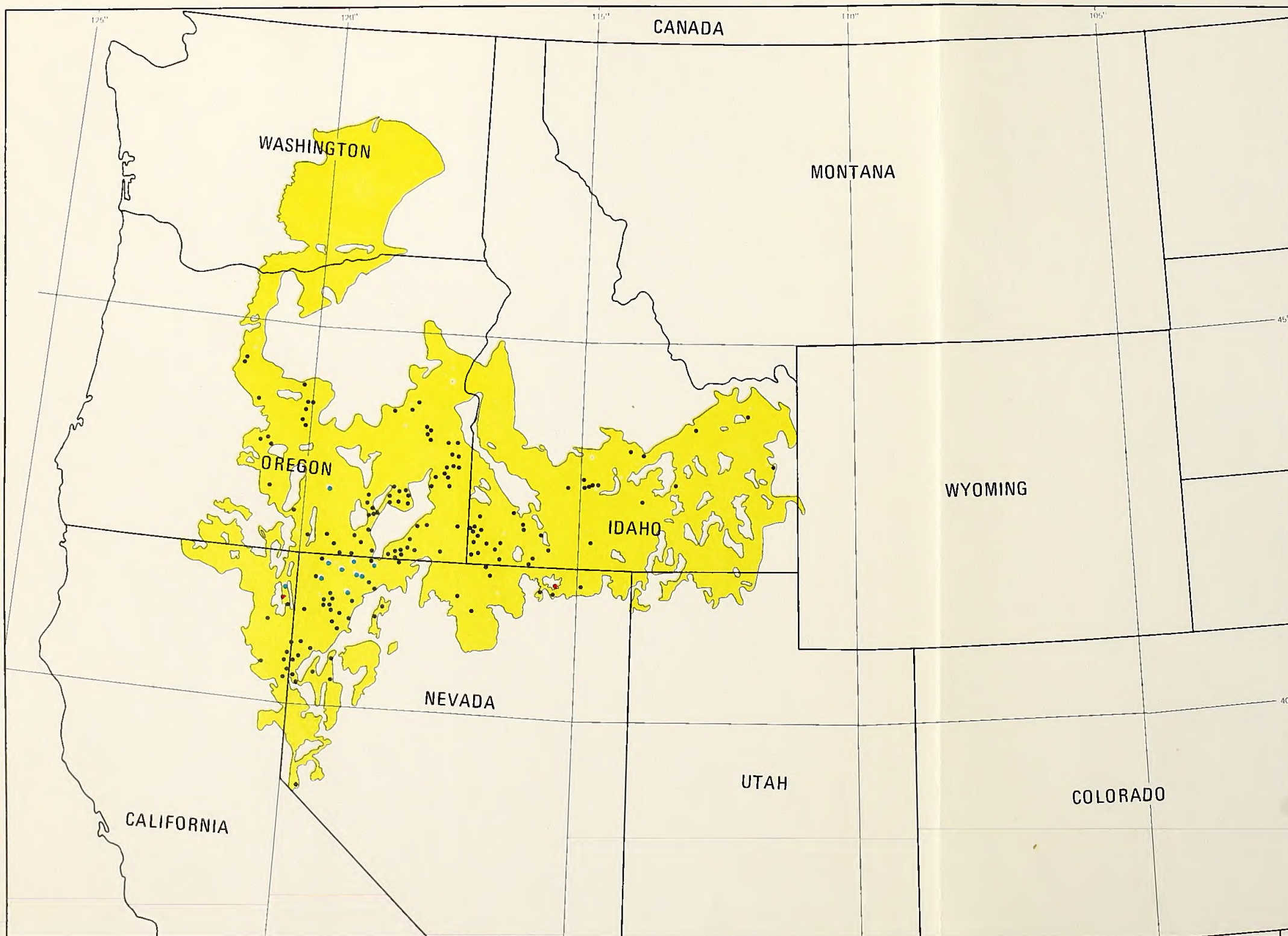
MAP 7

ADJOINING CANYONLANDS

— WSA BOUNDARY

■ ADJOINING CANYONLANDS

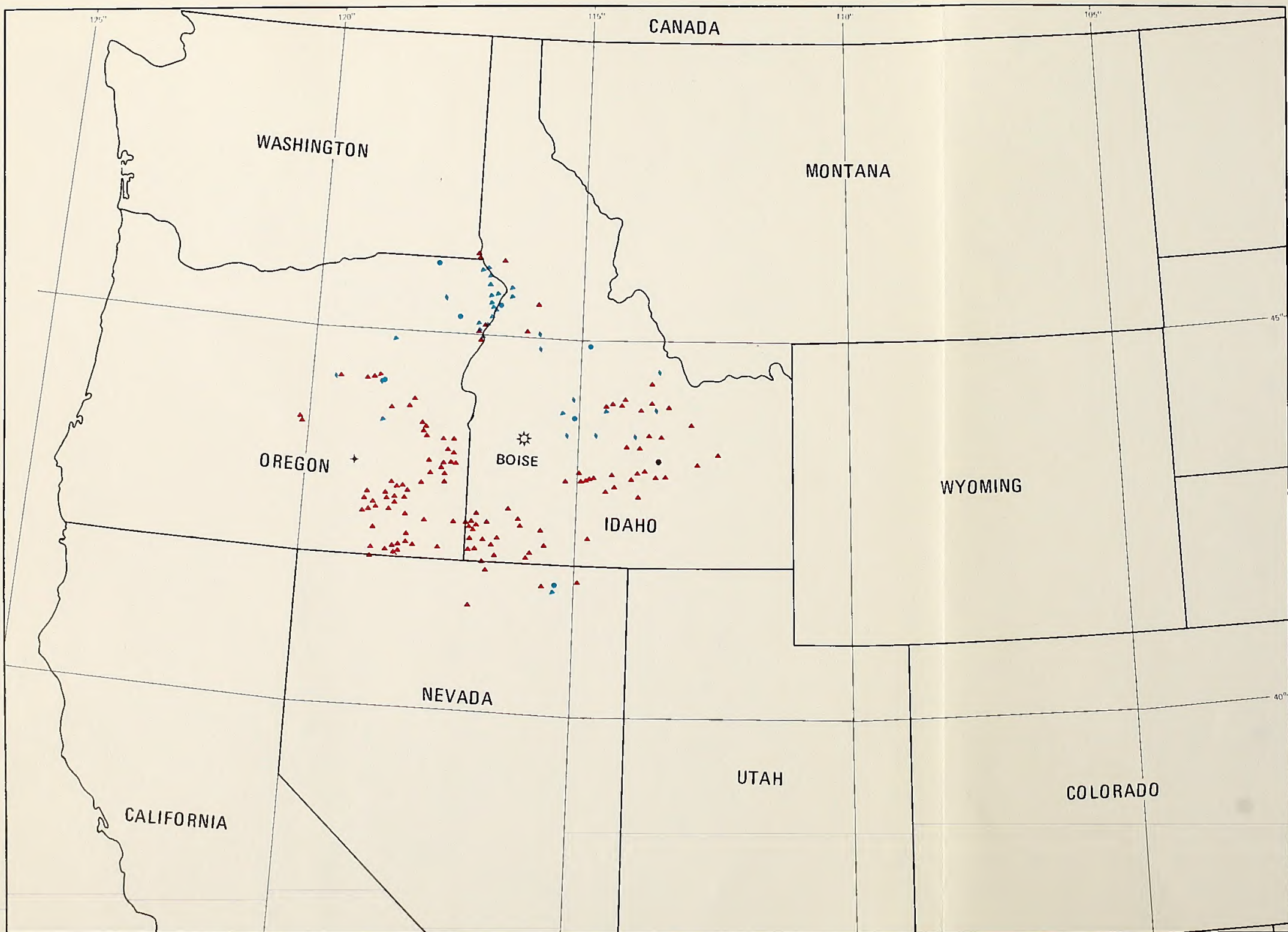




MAP 8
ECOSYSTEM 3130-49

- 3130-49 Intermountain Sagebrush - Sagebrush Steppe
- Designated Wilderness
- Administratively Endorsed Wilderness
- Other Study Areas

Scale 1:7,500,000



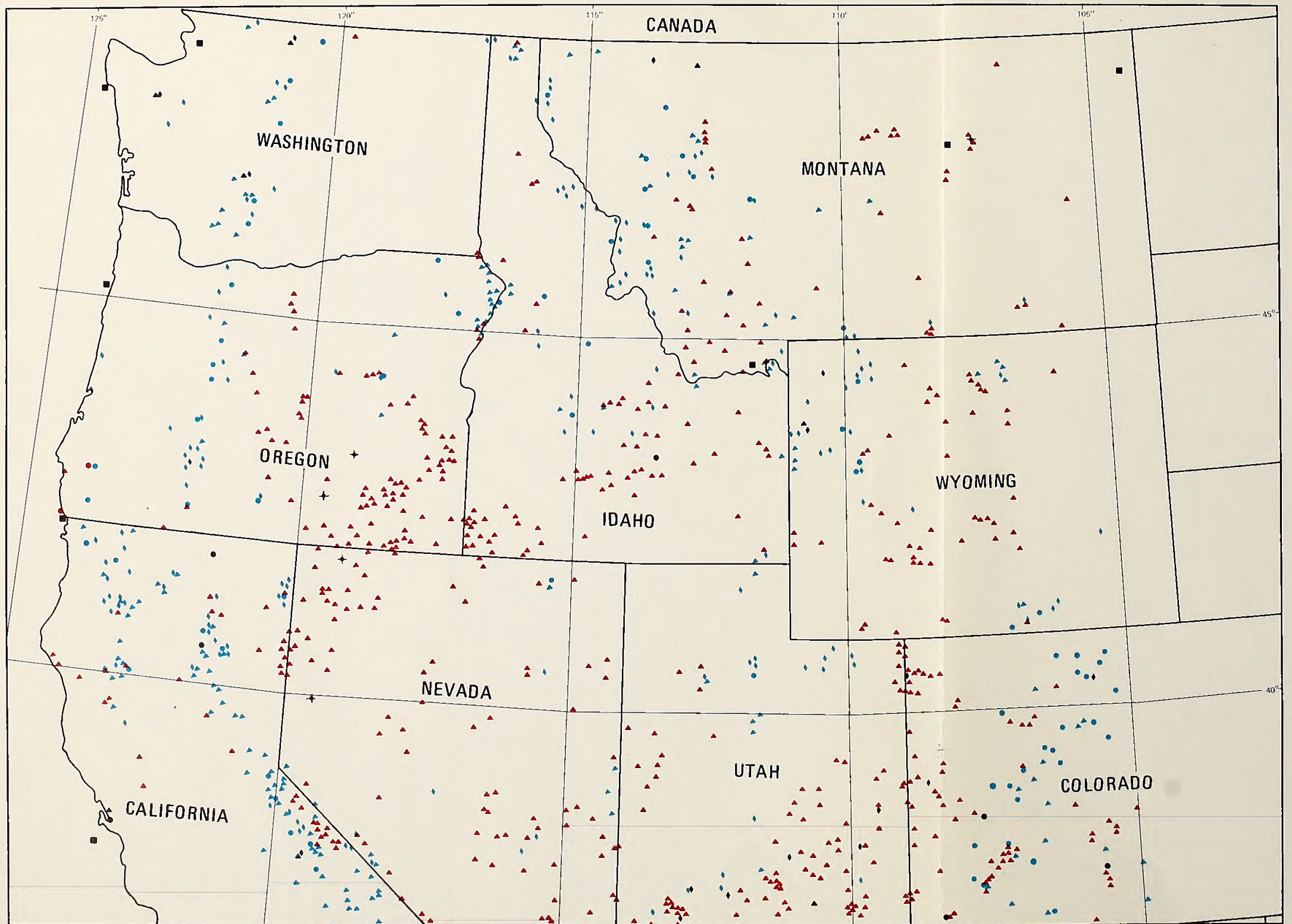
MAP 9

MSA - BOISE

• USFS DESIGNATED WILDERNESS
 • USFS AEW
 ▲ USFS FURTHER STUDY
 NONE BLM DESIGNATED WILDERNESS
 NONE BLM AEW
 ▲ BLM - WSA

• NPS DESIGNATED WILDERNESS
 NONE NPS AEW
 NONE NPS FURTHER STUDY
 NONE FWS DESIGNATED WILDERNESS
 + FWS AEW

SCALE 1:7,500,000



MAP 10
GEOGRAPHIC DISTRIBUTION

- USFS DESIGNATED WILDERNESS
- ◆ USFS AEW
- ▲ USFS FURTHER STUDY
- BLM DESIGNATED WILDERNESS
- NONE BLM AEW
- ▲ BLM - WSA

- NPS DESIGNATED WILDERNESS
- ◆ NPS AEW
- ▲ NPS FURTHER STUDY
- FWS DESIGNATED WILDERNESS
- + FWS AEW

SCALE 1:7,500,000

